pport to instant specification.	Language
NS.	Reference
Support to parent application filed November 3, 1981.	Reference
Claim Lanonage	âgģ

Claim I andiage	Support to parent	Support to parent application filed November 3, 1981.	Supp	Support to instant specification.
Agangarani rangaga	Reference	Language	Reference	Language
3. A method of controlling a receiver	Column 8 lines 20-27.	The signal processor apparatus also has a	Page 33 lines 7-20.	Signal processor, 26, has a controller device
station including the		programable random access memory		controller, 20: ROM, 21, that may contain
steps of:		controller 20, read only memory 21 that	-	unique digital code information capable of
		may contain a unique digital code capable		identifying signal processor, 26, and the
		of identifying the signal processing		subscriber station of said processor, 26,
		apparatus uniquely, an automatic dialing		uniquely; an automatic dialing device 24; and
		controller 20 aggress the constation of all		a telephone unit, 22 Controller, 20, has
-		operating elements of the apparatus.		capacity for controlling the operation of all elements of the signal processor
detecting one of a	Column 6 lines 48-50.	This base band signal is then transmitted	Page 34 line 35 to page	This base band signal is then transferred
presence and		through separate paths to three separate detector devices.	35 line 1.	through separate paths to three separate detector devices
an absence of a	Column 8 line 68 to	Buffer/comparator, 8, and monitor or	Page 258 lines 10-19.	Controller, 20, has capacity for keeping track
broadcast signal	column 9 line 4.	processor, 12, each have the capacity to	-	of elapsed time, and after determining in a
transmitted from a first		inform controller, 20, when signals that		predetermined fashion that a particular
remote station;		they look for in predetermined fashions,		predetermined period of time has elapsed from
		set by and changeable by controller, 20, fail		the input of wireless channel 9 to decoder, 30,
		to appear.		controller, 20, automatically causes control
				processor, 39J, to cause all apparatus of
				decoder, 30, cease receiving SPAM message
		-		information and delete all information
				received on said wireless channel 9 and causes
				oscillator, 6, to cause the selection of the next
				channel in the predetermined television
	0.10 (1)			channel selection pattern: wireless channel 13.
	Column 6 lines 23-30.	A signal processor apparatus for	Page 29 lines 4-15.	Fig. 2 shows one embodiment of a signal
		simultaneous use with a cablecast input that		processor. Said processor, 26, is configured
		conveys boun television and radio		for simultaneous use with a cablecast input
		immit is shown in Discuss 1 As above the		that conveys both television and radio
		input is snown in Figure 1. As snown, the		programming and a broadcast television input.
		frequencies or channels transmitted on the		The inputted information is the entire range
	-	cable and the entire range of broadcast		cable and the entire range of broadcast
-		television transmissions available to a local		television transmissions available to a local
		television antenna of conventional design.		television antenna of conventional design.
selecting a cablecast	Column 6 lines 30-41.	The cable transmission is input	Page 29 lines 15-26.	The cable transmission is inputted
signal for reception	•	simultaneously to switch 1 and mixer 2.		simultaneously to switch, 1, and nuxer, 2.
		The broadcast transmission is input to		The broadcast transmission is inputted to
-		switch 1. Switch 1 and mixers 2 and 3 are all controlled by local oscillator and switch		switch, 1. Switch, 1, and mixers, 2 and 3, are all controlled by local oscillator and switch
		control 6. The oscillator, 6, is controlled to		control, 6. The oscillator, 6, is controlled to
				SWIT 280, Appendix A. Page 1 of 183

apport to instant specification.	Language
Sup	Reference
upplication filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anouage	Summing Transport

	T***						
provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, 1, acts to select the broadcast input or the cablecast input and passes transmissions to mixer, 3, which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	Thereafter, the embedded information is caused to be recorded in the same fashion that the embedded information of said message is detected and recorded at decoder, 203, in example #3.	Finally, controller, 39J, transmits particular detection-complete information to controller, 20;	Receiving said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection nattern, wireless channel 5	Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, automatically causes control	processor, 39J, to cause all apparatus of decoder, 30, cease receiving SPAM message information and delete all information received on said wireless channel 9 and causes	oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13. In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable	channel 13, wireless channel 5, wireless
	Page 251 lines 3-8.	Page 253 lines 10-11.	Page 253 lines 19-22.	Page 258 lines 10-19.		Page 248 line 35 to page 249 line 5.	
provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, 1, acts to select the broadcast input or the cablecast input and passes transmissions to mixer 3 which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.			Buffer/comparator, 8, and monitor or processor, 12, each have the capacity to inform controller, 20, when signals that they look for in predetermined fashions, set by and changeable by controller, 20, fail to appear.		The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	
	Column 8 lines 62-65.		·	Column 8 line 68 to column 9 line 4.		Column 8 lines 27-29.	
	based on said step of detecting,						

	Support to parent app	application filed November 3, 1981.	Sun	Support to instant specification
Ciaim Language	Reference	Language	Reference	Language
-				
	•			channel 9, wireless channel 13, then to repeat said pattern.
said cablecast signal being transmitted from	Column 6 lines 23-30.	A signal processor apparatus for simultaneous use with a cablecast input that	Page 29 lines 4-15.	Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is configured
a second remote station;		conveys both television and radio programing and a broadcast television		for simultaneous use with a cablecast input that conveys both television and radio
		input is shown in Figure 1. As shown, the input signals are the entire range of		programming and a broadcast television input. The inputted information is the entire range.
		frequencies or channels transmitted on the	-	of frequencies or channels transmitted on the
		cable and the entire range of broadcast television transmissions available to a local		cable and the entire range of broadcast television transmissions available to a local
		television antenna of conventional design.		television antenna of conventional design.
receiving said cablecast	Column 9 lines 53-55.	The local oscillator, being thus sequenced,	Page 257 line 24 to	Said detection-complete information causes
step of selecting.	•	will allow each signal decoder, 30 and 40, to receive a particular frequency at a	page 238 line 19.	the selection of the next channel in the
		particular time interval.		predetermined television channel selection
				pattern: wireless channel 9. Automatically
				oscillator, 6, causes mixer, 3, to select the
				frequency of channel 9 and input said
				decoder, 30
				Controller, 20, has capacity for keeping
				track of elapsed time, and after determining in
			•	a predetermined tashion that a particular
				predetermined period of time has elapsed from the input of wireless channel 9 to decoder 30
				controller, 20, causes oscillator, 6, to cause
				the selection of the next channel in the
				predetermined television channel selection pattern: wireless channel 13.
		-	Page 265 line 27 to	Said radio-detection-complete information
			Page 266 line 21.	causes controller, 20, to cause oscillator, 6,
				to cause the selection of the next frequency in
	-		-	the predetermined radio frequency selection
				pattern: 99.0 MHz. Automatically oscillator,
				o, causes makel, 2, to select said inequelley and input it, at a fixed frequency, to decoder
	-	·		40
	•			

	_	_					
Support to instant specification.	Language		the input of said 99.0 MHz frequency to	decoder, 40, controller, 20, causes	oscillator, 6, to cause the selection of the next	frequency in the predetermined radio	frequency selection pattern: 100.0 MHz.
Sul	Reference						
pplication filed November 3, 1981.	Language						
Support to parent appl	Reference						
Claim I anguaga	Ciaini Language	-					

4. A method of	Column 8 lines 20-27.	The signal processor apparatus also has a	Page 33 lines 7-20.	Signal processor, 26 has a controller device
controlling a receiver		controller device which includes)	which includes programmable RAM
station including the		programable random access memory		controller, 20; ROM, 21, that may contain
steps of:		controller 20, read only memory 21 that		unique digital code information capable of
		may contain a unique digital code capable		identifying signal processor, 26, and the
		of identifying the signal processing		subscriber station of said processor, 26,
		apparatus uniquely, an automatic dialing		uniquely; an automatic dialing device 24; and
		device 24, and a telephone unit, 22. The		a telephone unit, 22 Controller, 20, has
		controller, 20, governs the operation of all		capacity for controlling the operation of all
		operating elements of the apparatus.		elements of the signal processor
detecting one of a	Column 6 lines 48-50.	This base band signal is then transmitted	Page 34 line 35 to page	This base band signal is then transferred
presence and		through separate paths to three separate	35 line 1.	through separate paths to three separate
		detector devices.		detector devices.
an absence of a	Column 8 line 68 to	Buffer/comparator, 8, and monitor or	Page 258 lines 10-19.	Controller, 20, has capacity for keeping track
cablecast signal	column 9 line 4.	processor, 12, each have the capacity to		of elapsed time, and after determining in a
transmitted from a first		inform controller, 20, when signals that		predetermined fashion that a particular
remote station;		they look for in predetermined fashions,		predetermined period of time has elapsed from
		set by and changeable by controller, 20, fail		the input of wireless channel 9 to decoder, 30,
		to appear.		controller, 20, automatically causes control
				processor, 39J, to cause all apparatus of
				decoder, 30, cease receiving SPAM message
				information and delete all information
. ,				received on said wireless channel 9 and causes
				oscillator, 6, to cause the selection of the next
				channel in the predetermined television
	,			channel selection pattern: wireless channel 13.
	Column 6 lines 23-30.	A signal processor apparatus for	Page 29 lines 4-15.	Fig. 2 shows one embodiment of a signal
		simultaneous use with a cablecast input		processor. Said processor, 26, is configured
		that conveys both television and radio		for simultaneous use with a cablecast input
		programing and a broadcast television		that conveys both television and radio
		input is shown in Figure 1. As shown, the		programming and a broadcast television input.
		input signals are the entire range of		The inputted information is the entire range
		frequencies or channels transmitted on the		of frequencies or channels transmitted on the
		cable and the entire range of broadcast		cable and the entire range of broadcast

Support to instant specification. Language	television transmissions available to a local television antenna of conventional design. The cable transmission is inputted simultaneously to switch, 1, and mixer, 2. The broadcast transmission is inputted to switch, 1. Switch, 1, and mixers, 2 and 3, are all controlled by local oscillator and switch control, 6. The oscillator, 6, is controlled to provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, 1, acts to select the broadcast input or the cablecast input and passes transmissions to mixer, 3, which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	Thereafter, the embedded information is caused to be recorded in the same fashion that the embedded information of said message is detected and recorded at decoder, 203, in example #3.
Sup Reference	Page 29 lines 15-26.	Page 251 lines 3-8.
Support to parent application filed November 3, 1981. Reference	television transmissions available to a local television antenna of conventional design. The cable transmission is input simultaneously to switch 1 and mixer 2. The broadcast transmission is input to switch 1. Switch 1 and mixers 2 and 3 are all controlled by local oscillator and switch control 6. The oscillator, 6, is controlled to provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, 1, acts to select the broadcast input or the cablecast input and passes transmissions to mixer 3 which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.
Support to parent Reference	Column 6 lines 30-41.	Column 8 lines 62-65.
Claim Language	signal for reception	based on said step of detecting,

Receiving said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 5.	Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30,	controller, 20, automatically causes control processor, 391, to cause all apparatus of decoder, 30, cease receiving SPAM message information and delete all information received on said wireless channel 9 and causes
Page 253 lines 19-22.	Page 258 lines 10-19.	
	Buffer/comparator, 8, and monitor or processor, 12, each have the capacity to inform controller, 20, when signals that they look for in predetermined fashions, set by and changeable by controller, 20, fail	to appear.

Column 8 line 68 to column 9 line 4.

Finally, controller, 39J, transmits particular detection-complete information to controller, 20, ...

Page 253 lines 10-11.

SWIT 280, Appendix A, Page 5 of 183

	Support to parent app	application filed November 3, 1981.	ans	Support to instant specification.
Claim Language	Reference	Language	Reference	Language
				oscillator, 6, to cause the selection of the next
			•	channel in the predetermined television
	,			channel selection pattern: wireless channel 13.
	Column 4 lines 5-6.	These techniques employ signals embedded in programs.	Page 13 lines 25-26.	The present invention employs signals embedded in programming.
said broadcast signal	Column 6 lines 23-30.	A signal processor apparatus for	Page 29 lines 4-15.	Fig. 2 shows one embodiment of a signal
being transmitted from		simultaneous use with a cablecast input that	1	processor. Said processor, 26, is configured
a second remote station;		conveys both television and radio	,	for simultaneous use with a cablecast input
and		programing and a broadcast television		that conveys both television and radio
		input is shown in Figure 1. As shown, the	-	programming and a broadcast television input.
		input signals are the entire range of		The inputted information is the entire range
,		frequencies or channels transmitted on the		of frequencies or channels transmitted on the
		cable and the entire range of broadcast		cable and the entire range of broadcast
		television transmissions available to a local		television transmissions available to a local
		television antenna of conventional design.		television antenna of conventional design.
receiving said broadcast	Column 9 lines 53-55.	The local oscillator, being thus sequenced,	Page 257 line 24 to	Said detection-complete information causes
signal basèd on said		will allow each signal decoder, 30 and 40,	page 258 line 19.	controller, 20, to cause oscillator, 6, to cause
step of selecting.		to receive a particular frequency at a		the selection of the next channel in the
		particular time interval.		predetermined television channel selection
		-		pattern: wireless channel 9. Automatically
				oscillator, 6, causes mixer, 3, to select the
				frequency of channel 9 and input said
				frequency of interest, at a fixed frequency, to
			,	decoder, 30
				Controller, 20, has capacity for keeping
				track of elapsed time, and after determining in
				a predetermined fashion that a particular
				predetermined period of time has elapsed from
	,			the input of wireless channel 9 to decoder, 30,
				controller, 20, causes oscillator, 6, to cause
	-			the selection of the next channel in the
				predetermined television channel selection
				pattern: wireless channel 13.

causes ... controller, 20, to cause oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 99.0 MHz. Automatically oscillator, 6, causes mixer, 2, to select said frequency and input it, at a fixed frequency, to decoder, 40 ...

Said radio-detection-complete information

Page 265 line 27 to Page 266 line 21.

Support to instant specification.	Language
Support	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference

Claim Language

After determining, in a predetermined fashion, that a particular predetermined period of time has elapsed from the input of said 99.0 MHz frequency to decoder, 40, controller, 20, causes oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 100.0 MHz.								
	After determining, in a	predetermined fashion, that a particular	predetermined period of time has elapsed from	the input of said 99.0 MHz frequency to	decoder, 40, controller, 20, causes	oscillator, 6, to cause the selection of the next	frequency in the predetermined radio	frequency selection pattern: 100.0 MHz.
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The cable transmission is inputted simultaneously to switch, 1, and mixer, 2. The broadcast transmission is inputted to switch, 1. Switch, 1, and mixers, 2 and 3, are all controlled by local oscillator and switch control, 6. The oscillator, 6, is controlled to provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, 1, acts to select the broadcast input or the cablecast input and passes transmissions to mixer, 3, which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	The cable transmission is inputted simultaneously to switch, 1, and mixer, 2. The broadcast transmission is inputted to switch, 1. Switch, 1, and mixers, 2 and 3, are all controlled by local oscillator and switch control, 6. The oscillator, 6, is controlled to provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, 1, acts to select the broadcast input or the cablecast input and passes transmissions to mixer, 3, which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	Said detection-complete information causes
Page 29 lines 15-26.	Page 29 lines 15-26.	Page 257 line 24 to
The cable transmission is input simultaneously to switch 1 and mixer 2. The broadcast transmission is input to switch 1. Switch 1 and mixers 2 and 3 are all controlled by local oscillator and switch control 6. The oscillator, 6, is controlled to provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, 1, acts to select the broadcast input or the cablecast input and passes transmissions to mixer 3 which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	The cable transmission is input simultaneously to switch 1 and mixer 2. The broadcast transmission is input to switch 1. Switch 1 and mixers 2 and 3 are all controlled by local oscillator and switch control 6. The oscillator, 6, is controlled to provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, 1, acts to select the broadcast input or the cablecast input and passes transmissions to mixer 3 which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	The local oscillator, being thus sequenced,
Column 6 lines 30-41.	Column 6 lines 30-41.	Column 9 lines 53-55.
5. The method of claim 3, further comprising the steps of: controlling a switch to select a cablecast signal input; and	communicating a signal from said selected cablecast signal input to	a receiver.

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Support to	Reference
pplication filed November 3, 1981.	Language
Support to parent a	Reference
Claim I and	Ciaim Language

		will allow each signal decoder, 30 and 40, to receive a particular frequency at a particular time interval.	page 258 line 19.	controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection	
	_			pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the	
				irequency of channel 9 and input said frequency of interest, at a fixed frequency, to decoder, 30	
				Controller, 20, has capacity for keeping track of elapsed time, and after determining in	
				a predetermined tasmon mat a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder 30.	E ~
				controller, 20, causes oscillator, 6, to cause the selection of the next channel in the	. g
		-		predetermined television channel selection pattern: wireless channel 13.	
			Page 265 line 27 to	Said radio-detection-complete information	
			rage 200 mie 21.	causes controller, zo, to cause oscillator, o, to cause the selection of the next frequency in	<u> </u>
				the predetermined radio frequency selection pattern: 99.0 MHz. Automatically oscillator,	
_				6, causes mixer, 2; to select said frequency	
				and input it, at a fixed frequency, to decoder,	
			-	After determining, in a	
				predetermined fashion, that a particular predetermined period of time has elapsed from	
				the input of said 99.0 MHz frequency to	
				oscillator, 6, to cause the selection of the next	
				frequency in the predetermined radio	

Colu	Page 29 lines 15-26.	simultaneously to switch 1 and mixer 2.	The broadcast transmission is input to	switch 1. Switch 1 and mixers 2 and 3 are switch, 1. Switch, 1. Switch, 1, and mixers, 2 and 3, are	all controlled by local oscillator and switch	control 6. The oscillator, 6, is controlled to
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application filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anguage	Ciaim Languago

		provide a number of discrete specified		provide a number of discrete specified	
		television channels required. The switch,		trequencies for the particular radio and television channels required. The switch, 1,	
		1, acts to select the broadcast input or the		acts to select the broadcast input or the	
		cablecast input and passes transmissions to		cablecast input and passes transmissions to	
		mixer 3 which, with the controlled		mixer, 3, which, with the controlled oscillator,	
		oscillator, 6, acts to select a television		6, acts to select a television frequency of	_
	•	frequency of interest that is passed at a		interest that is passed at a fixed frequency to a	
		fixed frequency to a 1V signal decoder, 30.		TV signal decoder, 30.	\neg
communicating a	Column 6 lines 30-41.	The cable transmission is input	Page 29 lines 15-26.	The cable transmission is inputted	
signal from said		simultaneously to switch I and mixer 2.		simultaneously to switch, 1, and mixer, 2.	
selected broadcast	_	I he broadcast transmission is input to		The broadcast transmission is inputted to	
signal niput to		switch 1. Switch I and mixers 2 and 3 are all controlled by local oscillator and ewitch		switch, 1. Switch, 1, and mixers, 2 and 3, are	
		control 6. The oscillator, 6, is controlled to		control. 6. The oscillator 6 is controlled to	
		provide a number of discrete specified		provide a number of discrete specified	
		frequencies for the particular radio and		frequencies for the particular radio and	_
	•	television channels required. The switch,		television channels required. The switch, 1,	
		1, acts to select the broadcast input or the		acts to select the broadcast input or the	_
		cablecast input and passes transmissions to		cablecast input and passes transmissions to	
		mixer 3 which, with the controlled		mixer, 3, which, with the controlled oscillator,	
		oscillator, 6, acts to select a television		6, acts to select a television frequency of	
		frequency of interest that is passed at a		interest that is passed at a fixed frequency to a	
		fixed frequency to a TV signal decoder, 30.		TV signal decoder, 30.	
a receiver.	Column 9 lines 53-55.	The local oscillator, being thus sequenced,	Page 257 line 24 to	Said detection-complete information causes	_
		will allow each signal decoder, 30 and 40,	page 258 line 19.	controller, 20, to cause oscillator, 6, to cause	
		to receive a particular frequency at a		the selection of the next channel in the	
	-	particular time interval.		predetermined television channel selection	
				pattern: wireless channel 9. Automatically	
				oscillator, 6, causes mixer, 3, to select the	
	•			frequency of channel 9 and input said	
		,		frequency of interest, at a fixed frequency, to	
				decoder, 30	
				Controller, 20, has capacity for keeping	_
				track of elapsed time, and after determining in	
				a predetermined fashion that a particular	
		·		predetermined period of time has elapsed from	
		-		the input of wireless channel 9 to decoder, 30,	
•				controller, 20, causes oscillator, 6, to cause	
				the selection of the next channel in the	
				predetermined television channel selection	-
				ss channel 13.	\neg
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apport to instant specification.	Language		
ddnS	Reference		
application filed November 3, 1981.	Language		
Support to parent a	Reference	-	
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	Said radio-detection-complete information	causes controller, 20, to cause oscillator, 6,	to cause the selection of the next frequency in	the predetermined radio frequency selection	pattern: 99.0 MHz. Automatically oscillator,	6, causes mixer, 2, to select said frequency	and input it, at a fixed frequency, to decoder,	 After determining, in a	predetermined fashion, that a particular	predetermined period of time has elapsed from	the input of said 99.0 MHz frequency to	decoder, 40, controller, 20, causes	oscillator, 6, to cause the selection of the next	frequency in the predetermined radio	frequency selection pattern: 100.0 MHz.
	Page 265 line 27 to	Page 266 line 21.		_											
							٠								
:	· ·				-										
													•		-
	•			•		_	-		•				•	-	

Signal processor, 200, is preprogrammed with information that identifies each cable and over-the-air (hereinafter, "wireless") transmission or frequency in the locality of the subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that apply on said transmissions and frequencies In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 13, then to repeat said pattern.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to SWIT 280, Appendix A, Page 10 of 183
Page 248 line 17 to page 249 line 5.	Page 257 line 24 to page 258 line 19.
The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.	
The method of column 9 lines 47-52. or claim 4, aving one step group g of: mming a r to control a select one of a t and a i input;	
7. The method of claim 3 or claim 4, further having one step from the group consisting of: programming a processor to control a switch to select one of a broadcast and a cablecast input;	

port to instant specification	Language
Sup	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference
Jane I anielo	Ciaiiii Laiiguage

			
decoder, 30 Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.	switch, 1. Switch, 1, and mixers, 2 and 3, are all controlled by local oscillator and switch control, 6. The oscillator, 6, is controlled to provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, 1, acts to select the broadcast input or the cablecast input and passes transmissions to mixer, 3, which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	Signal processor, 200, is preprogrammed with information that identifies each cable and over-the-air (hereinafter, "wireless") transmission or frequency in the locality of the subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that apply on said transmissions and frequencies In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 9, wireless channel 13, then to repeat said pattern.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection
Page 29 lines 16.26		Page 249 line 17 to page 249 line 5.	Page 257 line 24 to page 258 line 19.
The broadcast transmission is innut to	switch 1. Switch 1 and mixers 2 and 3 are all controlled by local oscillator and switch control 6. The oscillator, 6, is controlled to provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, 1, acts to select the broadcast input or the cablecast input and passes transmissions to mixer 3 which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.	
Column 6 lines 31-41		Column 9 lines 47-52.	
		programming said receiver station with a plurality of transmission standards for receiving signals	

port to instant specification	Language
Supi	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference
	Claim Language

				pattern: wireless channel 9. Automatically
		•		oscillator, 6, causes mixer, 3, to select the
				frequency of channel 9 and input said
				frequency of interest, at a fixed frequency to
				decoder, 30
•				Controller 20 has capacity for
,				keening track of elansed time and after
				determining in a predetermined faction that a
				aciciniming in a picacicinimica rasimon mar a
				particular predetermined period of time has
				elapsed from the input of wireless channel 9 to
				decoder, 30, controller, 20, causes
		-		oscillator, 6, to cause the selection of the next
				channel in the predetermined television
				channel selection pattern: wireless channel 13.
from at least one remote	Column 6 lines 23-30.	A signal processor apparatus for	Page 29 lines 4-15.	Fig. 2 shows one embodiment of a signal
source;		simultaneous use with a cablecast input that		processor. Said processor, 26, is configured
		conveys both television and radio		for simultaneous use with a cablecast input
		programmg and a broadcast television		that conveys both television and radio
		input is shown in Figure 1. As shown, the		programming and a broadcast television input.
	-	input signals are the entire range of		The inputted information is the entire range
		frequencies or channels transmitted on the		of frequencies or channels transmitted on the
	•	cable and the entire range of broadcast		cable and the entire range of broadcast
		television transmissions available to a local		television transmissions available to a local
		television antenna of conventional design.		television antenna of conventional design.
programming a	Column 8 lines 20-27.	The signal processor apparatus also has a	Page 33 lines 7-20.	Signal processor, 26, has a controller device
processor to one of		controller device which includes		which includes programmable RAM
assemble,		programable random access memory		controller, 20; ROM, 21, that may contain
	-	controller 20, read only memory 21 that		unique digital code information capable of
		may contain a unique digital code capable		identifying signal processor, 26, and the
		of identifying the signal processing		subscriber station of said processor, 26,
•		apparatus uniquely, an automatic dialing		uniquely; an automatic dialing device 24; and
		device 24, and a telephone unit, 22. The		a telephone unit, 22 Controller, 20, has
		controller, 20, governs the operation of all		capacity for controlling the operation of all
		operating elements of the apparatus.		elements of the signal processor
	Column 9 line 68 to	The controller, 20, instructs	Page 32 lines 20-21.	Buffer/comparator, 14, operates under control
	column 10 line 2.	buffer/comparator, 14, what signals to		of controller, 20,
		discard and how to mark signals and		
-		assemble signal strings.	Page 223 lines 22-33.	Said match causes controller, 20, to execute
-				said instructions. Under control of said first
		-		set, controller, 20, initiates assembly of said
				first meter record by selecting and placing at
				particular record locations at
				, 000 0000

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1	Support to parent appl	application filed November 3, 1981.	Supp	Support to instant specification.
Ciaiiii Laiiguage	Reference		Reference	Language
				buffer/comparator, 14, particular record format information, then program unit information from a particular meter-monitor field of said 1st meter & monitor information (#4), origin of transmission information from a second field, date and time of transmission information from a third field, decryption key information from the decryption mark of said 1st meter & monitor information (#4), and finally date and time of processing information from clock, 18.
			Page 224 lines 12-18.	When said second set is completed, controller, 20, executes said third specified set which causes controller, 20, to cause buffer/comparator, 14, to transfer said second meter record to recorder, 16, in a predetermined fashion then discard all information of said record from its memory and to cause recorder, 16, to process and record said transferred meter record in its preprogrammed fashion.
identify, and	Column 9 lines 65-68.	[Controller, 20] instructs processor or monitor, 12, how to identify what signals to pass externally and where to pass them and what signals to transfer to buffer/comparator, 14.	Page 438 lines 13-15. Page 59 lines 31-33.	causing the apparatus of decoder, 30, to commence identifying and processing the individual SPAM messages embedded in said transmission. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.
respond to	Column 8 lines 40-44.	[Controller, 20] can tell processor or monitor, 12, how to determine which signals to pass externally and when and where and how to determine which signals to pass to buffer/comparator, 14.	Page 33 lines 18-20. Page 149 lines 8-15.	Controller, 20, has capacity for controlling the operation of all elements of the signal processor and Then said instructions cause controller, 20, to transmit to controller, 12, a particular transfer-decryption mark information of key J that identifies J as the decryption key. Receiving said instruction and information causes controller, 12, to execute particular preprogrammed transfer- and-meter

upport to instant specification.	Language
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t application filed November 3, 1981.	Language
Support to paren	Reference
Claim I angua	Ciaim Language

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Support to instant specification.	Language		instructions	Automatically, controller, 12, executes preprogrammed transfer-10-205-@12	instructions; activates the output port that outputs to SPAM- controller, 205C; then	decrypted information of the second message	under control of said transfer-and-meter	H bits and transferring information,	causes controller, 12, to cease	transferring information, under control of said	transfer-and-meter instructions, to deactivate	all output ports, and to commence executing	the meter instructions of said meter transfer-and-meter instructions. Said meter	instructions cause controller, 12, to transfer	to buffer/comparator, 14, particular header	identification information that identifies	controller, 12, as the source of said transfer	the information recorded at said SPAM-meter memory then the information recorded at said	decryption-mark- (@12 register memory,	which information is the decryption mark of	key J. (Hereinafter, said meter information	generated by the second combining synch	meter information (#2).")	Examples of signal words are a string of one	or more digital data bits encoded together on a	single line of video or sequentially in audio.	Said detection-complete information causes	controller, 20, to cause oscillator, 6, to cause	the selection of the next channel in the	predetermined television channel selection	pattern: wireless channel 9. Automatically	oscillator, 6, causes mixer, 3, to select the	
	Keterence	-		For example, page 150 lines 29-35.			-		For example, page 152	line 19 to page 153 line														Page 14 line 35 to page	15 line 2.		Page 257 line 24 to	page 258 line 19.					
Support to parent application filed November 3, 1981.	Language																							Examples of signal words are a string of	one or more digital data bits encoded	together on a single line of video or sequentially in audio.	The local oscillator, being thus sequenced,	will allow each signal decoder, 30 and 40,	to receive a particular frequency at a	particular time interval.			
Support to parent	Keierence											-		-										Column 3 lines 6-8.			Column 9 lines 53-57.		•				
Claim Language	1																-	·				,		digital signals			detected in						-

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Support to instant specification.	Language	decoder, 30	Controller, 20, has capacity for keeping	track of elapsed time, and after determining in	a predetermined fashion that a particular	predetermined period of time has elapsed from	the input of wireless channel 9 to decoder, 30,	controller, 20, causes oscillator, 6, to cause	ure serection of the flexicion channel in the	proceduring the parties of the parti	Said radio-detection-complete information	causes controller, 20, to cause oscillator, 6,	to cause the selection of the next frequency in	the predetermined radio frequency selection	pattern: 99.0 MHz. Automatically oscillator,	o, causes mixer, 2, to select said frequency	and input it, at a fixed frequency, to decoder,	40 After determining in a produte minud	Anci determing, in a predetermined	rashion, that a particular predetermined period	MHz frequency to decoder 40 controller 20	causes oscillator, 6, to cause the selection	of the next frequency in the predetermined	radio frequency selection pattern: 100.0 MHz.	•	Example #5 begins with the embedding and	transmitting, at the remote station that	of the first message of the "Wall Street Week"	program which is the message of the first	combining synch command.
IdnS	Reference					-					Page 265 line 27 to	Page 266 line 21.								-						Page 250 lines 13-17.	-			
application filed November 3, 1981.																•			•							This will define the timing of the	composite outputs of the digital detectors,	2B.		,
Support to parent appl	Reference																													
	Claim Language				•																								-	

Receiving said embedded information causes the binary SPAM information of said first command, with error correcting information, to be detected at detector, 34; ...

251 lines 8-11.

Page 263 lines 19-24.

ort to instant specification.	Language
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application filed November 3, 1981.	Language
Support to parent appl	Reference
	anguage

Claim Language	Reference	Language	Reference	Language	\neg
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				said signal information to digital detector, 43, which detects the binary information with error correcting bit information of said command and transfers said binary and bit information to controller, 44.	
			Page 37 lines 26-28.	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46.	
one of a broadcast and a cablecast transmission;	Column 6 lines 23-30.	A signal processor apparatus for simultaneous use with a cablecast input that conveys both television and radio programing and a broadcast television input is shown in Figure 1. As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast	Page 29 lines 4-15.	Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is configured for simultaneous use with a cablecast input that conveys both television and radio programming and a broadcast television input The inputted information is the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast	
		television antenna of conventional design.	-	television antenna of conventional design.	
programming a processor to communicate control signals	Column 8 lines 20-27.	The signal processor apparatus also has a controller device which includes programable random access memory controller 20, read only memory 21 that may contain a unique digital code capable of identifying the signal processing apparatus uniquely, an automatic dialing device 24, and a telephone unit, 22. The controller, 20, governs the operation of all	Page 33 lines 7-20.	Signal processor, 26, has a controller device which includes programmable RAM controller, 20; ROM, 21, that may contain unique digital code information capable of identifying signal processor, 26, and the subscriber station of said processor, 26, uniquely; an automatic dialing device 24, and a telephone unit, 22 Controller, 20, has capacity for controlling the operation of all	
, , , , , , , , , , , , , , , , , , ,	Column 8 lines 40-44.	[Controller, 20] can tell processor or monitor, 12, how to determine which signals to pass externally and when and where and how to determine which signals	Page 33 lines 18-20.	Controller, 20, has capacity for controlling the operation of all elements of the signal processor and	
		to pass to buffer/comparator, 14.	Page 149 lines 8-15.	Then said instructions cause controller, 20, to transmit to controller, 12, a particular transfer-decrypted-message instruction and particular decryption mark information of key 3 that identifies J as the decryption key. Receiving said instruction and information causes controller 12 to execute particular.	
· ·				preprogrammed transfer- and-meter SWIT 280 Appendix A Page 16 of 183	%

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Claim I anmiage	Support to parent	Support to parent application filed November 3, 1981.	IdnS	Support to instant specification.
Ciaim Language	Reference	Language	Reference	Language
				instructions
			For example, page 150 lines 29-35.	Automatically, controller, 12, executes preprogrammed transfer-to-205-@12 instructions, activates the output port that outputs to SPAM- controller, 205C; then commences transferring information of said decrypted information of the second message under control of said transfer-and-meter instructions commencing with the first of said H bits and transferring information,
			For example, page 152 line 19 to page 153 line 1	transferring information, under control of said transfer-and-meter instructions, to deactivate all output ports, and to commence executing the meter instructions of said transfer-and-meter instructions. Said meter instructions cause controller, 12, to transfer to buffer/comparator, 14, particular header identification information that identifies controller, 12, as the source of said transfer the information recorded at said SPAM-meter memory then the information recorded at said decryption-mark- @12 register memory, which information is the decryption mark of key J. (Hereinafter, said meter information generated by the second combining synch command in example #2 is called the "2nd meter information (#2)")
	Column 8 lines 58-60.	Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.	Page 290 lines 26-31.	switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;
			Page 291 lines 21-24.	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to

	Support to parent appl	application filed November 3, 1981.	adnS	Support to instant specification.
Ciaiiii Language	Reference	Language	Reference	Language
				which said master control channel is inputted), to detect the information of said message,
			Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
to at least one controllable device;	Column 8 lines 62-65.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.	Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
	·		For example, page 531 lines 17-22.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch, 259
processor to respond	Column 8 lines 20-27.	The signal processor apparatus also has a controller device which includes programable random access memory controller 20, read only memory 21 that may contain a unique digital code capable of identifying the signal processing apparatus uniquely, an automatic dialing device 24, and a telephone unit, 22. The controller, 20, governs the operation of all operating elements of the apparatus.	Page 33 lines 7-20.	Signal processor, 26, has a controller device which includes programmable RAM controller, 20; ROM, 21, that may contain unique digital code information capable of identifying signal processor, 26, and the subscriber station of said processor, 26, uniquely; an automatic dialing device 24, and a telephone unit, 22 Controller, 20, has capacity for controlling the operation of all elements of the signal processor.
to an instruct-to-react signal; and	Column 8 lines 62-65	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.	Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.

Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch, 259...

Signal processor, 26, has a controller device

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Page 33 lines 7-20.

The signal processor apparatus also has a

Column 8 lines 20-27.

programming said

For example, page 531 lines 17-22.

port to instant specification.	Language
dnS	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim I anguage	Agung imm

which includes programmable RAM controller, 20; ROM, 21, that may contain unique digital code information capable of	subscriber station of said processor, 26, and the subscriber station of said processor, 26, uniquely; an automatic dialing device 24; and a telephone unit, 22 Controller, 20, has capacity for controlling the operation of all	elements of the signal processor	Controller, 20, has capacity for controlling the operation of all elements of the signal processor	The first stage of said sequence involves transferring audit information to a particular first host computer at a first remote station.	causes controller, 20, to cause recorder, 16, to transmit all recorded meter audit records and particular other audit information to	telephone connection, 22, which causes said connection, 22, to transmit said records and information to said first communer.
			Page 33 lines 18-20.	Page 273 lines 4-6.	Page 273 lines 21-25.	
controller device which includes programable random access memory controller 20, read only memory 21 that may contain a unique digital code canable	of identifying the signal processing apparatus uniquely, an automatic dialing device 24, and a telephone unit, 22. The controller, 20, governs the operation of all	operating elements of the apparatus.	The controller, 20, also inputs the digital recorder, 16, to direct it to output the information from the memory of the	recorder, 16, to telephone connection, 22, and thence to the collection site at the remote geographical location.		
			Column 8 lines 46-50.			
receiver station to communicate with a third remote station via telecommunications	network.				,	

In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,	All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)
Page 435 lines 16-18. all c app.	Page 267 lines 20-28 from example #5. The and sign Each program micr rece described and a sign micr received and a sign micr
processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator,	
The method of Column 19 lines 17-23. Ir claim 4, a processor sone of a code	
8 The method of claim 3 or claim 4, wherein a processor processes one of a code	and datum designating one of a television channel and a television program, said method further having one step of the group consisting of:

oort to instant specification.	Language
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upplication filed November 3, 1981.	Language
Support to parent a	Reference
Claim Language	Cimini Languago

Receiving said Select-WSW-Program- Unit	message causes decoder, 203, to input	the information segment of said message to	the CPU of microcomputer, 205 The	information so inputted is the aforementioned	determine_whether_to_select instructions that	contain said norticular ensoifs WeW	Collidati Salu particular specific- w.S.W	information and said enable-WSW-on-	CC13	Said instructions contain one instance, and	program-unit-of-interest information that is	preprogrammed at said microcomputer, 205,	contains a second instance of specific-WSW	information, which second instance reflects	the wish of the subscriber of said station to	view (or record) said "Wall Street Week"	program when said program is transmitted	Automatically, microcomputer 205 compares	said one instance to said	program unit of interest information and	Actormings a motal mith and among	ueter mines a maten with said second instance	Determining a match causes	microcomputer 205 automatically to input	said please-fully-enable-WSW	-on-CC13-at-particular- 8:30 information to	the controller, 20.	to receive the transmission of cable	instructions causes controller 20 to switch	power on to monitor. 202M. and commence	transferring the television output transmission	of microcomputer, 205, to said monitor,	202M; Automatically, controller, 20, inputs	a particular instruction to decoder, 145, via	said communications link, that causes	decoder, 145, to switch power on to monitor,	202M, and to tune monitor, 202M, in a	predetermined fashion.	In so doing souther 10 and an analysis	1 in so doing, controller, 20, causes monitor,
Page 436 line 9 to	page 437 line 3.													•														Page 439 lines 14-15.	Page 445 line 24 to	page 446 line 1.									Page 446 lines 17-21	1 ago 110 mino 11-11.
										-						-													and also microcomputer 205 may	instruct switch, 216, to turn TV set, 202, on	and tuner, 215, to tune appropriately to	"Wall Street Week."								_
							,																						Column 19 lines 27-29.		-									
:																													controlling a tuner to	tune a receiver to	receive said one of a	television channel and a	television program	designated by said one	ot a code and datum;					_

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port to instant specification.	Language	
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application filed November 3, 1981.	Language	
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Claim Language	0	

Claim Language		,	Jan 2	or to merant epochtication.	_
3	Reference	Language	Reference	Language	
			·	202M, to receive the decrypted video and audio information of the "Wall Street Week" program, to display the video image of said information, and to emit sound in accordance	$\overline{}$
	Column 19 lines 23-25.	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X	Page 437 lines 1-6.	with said audio Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-	
				CC13-at-particular- 8:30 information to the controller, 20. Receiving said please-fully-enable-WSW-on-CC13-at-particular-8:30 information causes controller, 20, in a	
				predetermined fashion, to prepare particular apparatus	
			Page 439 lines 9-15.	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	
:			Page 295 lines 6-8.	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	
			Page 439 lines 9-15.	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;	
controlling a selective transfer device to input to	Column 19 lines 27-29.	and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."	Page 445 line 24 to page 446 line 1.	instructions causes controller, 20, to switch power on to monitor, 202M, and commence transferring the television output transmission of microcomputer, 205, to said monitor, 202M; Automatically, controller, 20, inputs a particular instruction to decoder, 145, via said communications link, that causes decoder, 145, to switch power on to monitor, 202M, and to tune monitor, 202M, in a predetermined fashion.	
			Page 446 lines 17-21.	In so doing, controller, 20, causes monitor,	

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oort to instant specification.	Language
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application filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anguage	Cianni Languago

When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by
decoder, 203, and transferred to microcomputer, 205
control information connections between signal processor, 130, and the remote decoders which would permit signal decoder, 130, to alter the methods of operation of said remote decoders. Such control information connections are included in signal processing apparatus and methods.)

port to instant specification.	Language
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application filed November 3, 1981.	Language
Support to parent	Reference
Claim I anguage	Ciamir Language

Language		instructions causes controller, 20, to switch power on to monitor, 202M, and commence transferring the television output transmission of microcomputer, 205, to said monitor, 202M; Automatically, controller, 20, inputs a particular instruction to decoder, 145, via said communications link, that causes decoder, 145, to switch power on to monitor, 202M, and to tune monitor, 202M, in a predetermined fashion.	In so doing, controller, 20, causes monitor, 202M, to receive the decrypted video and audio information of the "Wall Street Week" program, to display the video image of said information, and to emit sound in accordance with said audio		instruction signals embedded in the "Wall Street Week" programming transmission.	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening,	Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series.	In each decoder, the controller, 39, 44, or 47, receives detected digital information from SWIT 280, Appendix A, Page 23 of 183
Reference		Page 445 line 24 to page 446 line 1.	Page 446 lines 17-21.		Page 21 lines 23-24.	Page 451 lines 6-7.	Page 23 line 35 to page 24 line 4.	Page 37 line 26 to page
Language		and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."			instruction signals embedded in the "Wall Street Week" programing transmission.	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening,	several instruction signals are identified by decoder, 203, and transferred to mucrocomputer, 205.	
Reference	Column 3 line 3 Column 3 lines 6-8 Column 15 lines 59-65 Column 16 line 39 Column 17 line 40 Column 19 lines 14-15	Column 19 lines 27-29.		Column 17 lines 65 - Column 18 line 4	Column 19 lines 43-49.			
Cianii Languago		controlling a selective transfer to			input to a computer control signals detected in said one of a television channel and a	television program designated by said one of a code and datum;		

		_		
Support to instant specification.	Language		the relevant detector or detectors, 34, 37, 38,	43, and 46. Upon receiving any given
Supp	Reference		38 line 8.	
application filed November 3, 1981.	Language			
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the relevant detector or detectors, 34, 37, 38, 43, and 46. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is preprogrammed to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred, and to transfer said signals to said apparatus.	Microcomputer, 205, evaluates the initial signal word or words which instruct it to	Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programming transmission.	Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series. Microcomputer, 205, evaluates the initial signal word or words which instruct it to load at RAM (from the input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions that follows said word or words just as the information of a file named FILE. EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the disk drive of said disk inputs) and run were the command "FILE" entered from the console keyboard to the system level of the installed disk operating
38 line 8.	Page 24 lines 5-6.	Page 21 lines 20-24.	Page 23 line 35 to page 24 line 16.
	These signals instruct microcomputer, 205,	Microcomputer, 205, is preprogramed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission.	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, upon command.
		Column 19 lines 42-44.	Column 19 lines 46-53.
		controlling a computer to respond to at least one control signal in said one of a television channel and a television program designated by said one of a code and datum;	

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Ciaiiii Laiiguage	Reference	Language	Reference	Language
_				6.6
				system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")
	·		Page 44 lines 14-17.	A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function
				constituted of at least a
			Page 26 lines 20-28.	(Hereinafter, an instruction such as
				the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute
				a combining operation in synchronization is called a "combining synch command." Said
				initial signal word or words that preceded the
				above program instruction set provide another example of a combining synch command in
				that said word or words synchronized all subscriber station computers in commencing
		•		loading and running information for a
	Column 19 line 60 to column 20 line 1.	At this point, an instruction signal is generated in the relevision studio	Page 25 line 34 to page	particular combining.) At this point, an instruction signal is generated
		originating the programing and is transmitted in the programing transmission.		at sard programming transmission, and transmitted. Said signal is identified by
		This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205.		decoder, 203; transferred to microcomputer, 205;
			Page 37 line 26 to	In each decoder, the controller, 39, 44, or
			page 38 line 8.	47, receives detected digital information from the relevant detector or detectors 34, 37, 38
				43, and 46. Upon receiving any given
			-	instance of signal information, controller, 39,
				44, or 47, is preprogrammed to process said
				preprogrammed to comment and the

preprogrammed to ... correct errors in retained received information by means of forward error correction techniques well known in the art; to convert, as may be required, the corrected information, by means

Support to instant specification.	e Language	of input protocol techniques well known in the art, into digital information that subscriber station apparatus can receive and process; to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus.		subscriber's own portfolio performance overlaid on the studio generated graphic. And microcomputer, 205, commences	1 to instructions causes controller, 20, to switch power on to monitor, 202M, and commence transferring the television output transmission of microcomputer, 205, to said monitor, 202M; Automatically, controller, 20, inputs	said communications link, that causes decoder, 145, to switch power on to monitor, 202M, and to tune monitor, 202M, in a predetermined fashion.	7-21. In so doing, controller, 20, causes monitor, 202M, to receive the decrypted video and audio information of the "Wall Street Week" program, to display the video image of said
3, 1981.	Language Reference		This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204.	The viewer then sees a microcomputer generated graphic of his own stocks' performance	and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."		Page 446 lines 17-21.
Support to parent a	Reference				Column 19 lines 27-29.		
Claim Language	0				controlling a television monitor to display one of video and audio contained in said one of a television channel and a television	program designated by said one of a code and datum;	

with said audio ...

Page 437 lines 1-6.

... microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and

Column 19 lines 23-27.

controlling a video recorder to one of record and play one of

video and audio

may instruct control system, 220, to turn video recorder, 217, on and record "Wall

oort to instant specification.	Language
Supl	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim Language	28.m9

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G				
a television channel and a television program designated by said one of a code and datum;		Street Week,"		controller, 20. Receiving said please-fully-enable-WSW-on-CC13-at- particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular
and				apparatus
			Page 439 lines 9-15.	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;
			Page 295 lines 6-8.	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its
			Page 439 lines 9-15.	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;
			Page 445 lines 24-27.	instructions causes controller, 20,; to switch power on to video recorder/player, 217,
			Page 446 lines 18-23.	controller, 20, causes recorder/player, 217, to record said information of the "Wall Street Week" program.
OO	Column 19 lines 1-4 Column 19 line 45			
controlling a selective transfer device to communicate to one of a video recorder and a television monitor said one of a television channel and a television program designated by said one of a code and datum.	Column 19 lines 23-29	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and may instruct control system, 220, to turn video recorder, 217, on and record "Wall Street Week," and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."	Page 437 lines 1-6.	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular-8:30 information to the controller, 20. Receiving said please-fully-enable-WSW-on-CC13-at-particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus

oort to instant specification.	Language
OddnS	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anguana	Cimin Language

Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;	instructions causes controller, 20, to switch power on to video recorder/player, 217,	controller, 20, causes recorder/player, 217, to record said information of the "Wall Street Week" program.	instructions causes controller, 20, to switch power on to monitor, 202M, Automatically, controller, 20, inputs a particular instruction to decoder, 145, via said communications link, that causes decoder, 145, to switch power on to monitor, 202M,	or, 202M, in a on.	In so doing, controller, 20, causes monitor, 202M, to receive the decrypted video and audio information of the "Wall Street Week" program, to display the video image of said information, and to emit sound in accordance with said audio
Then, automatically, controller, 20, selected tuner, 214, to tune to the free cable channel 13, thereby causing its associated converter box, 201, to con	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable chann	instructions causs switch power on to	controller, 20, ca 217, to record said info Street Week" program.	instructions causes controller, 20, to power on to monitor, 202M, Automatically, controller, 20, inputs a particular instruction to decoder, 145, communications link, that causes deco 145, to switch power on to monitor, 20	and to tune monitor, 202M, in a predetermined fashion.	In so doing, controll 202M, to receive the audio information of program, to display information, and to with said audio
Page 295 lines 6-8.	Page 439 lines 9-15.	Page 445 lines 24-27.	Page 446 lines 18-23.	Page 445 line 24 to page 446 line 1.	Page 445 line 35 to page 446 line 1.	Page 446 lines 17-21.
•						
				· · · · · · · · · · · · · · · · · · ·	· ·	
			••			

In due course, while scanning sequentially	all channels in the fashion of example #5, the	apparatus of the signal processor, 200,
Page 435 lines 16-18.		
processor or monitor, 12, which reacts,	in a predetermined fashion by passing also	externally to microcomputer, 205, all
Column 19 lines 17-23.	-	
9. The method of	claim 3 or claim 4,	wherein a processor

oort to instant specification.	Language
Suppor	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim Language	2922

									
Support to instant specification.	Language	All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station	receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, The information so inputted is the aforementioned	determine-whether- to-select instructions that contain said particular specific-WSW information and said enable-WSW-on-CC13	Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW	information, which second instance reflects the wish of the subscriber of said station to view (or record) said "Wall Street Week" program when said program is transmitted.	Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and determines a match with said second instance.	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20.
Supi	Reference	Page 267 lines 20-28 from example #5.		Page 436 line 9 to page 437 line 3.					,
Support to parent application filed November 3, 1981.	Language	signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.							
Support to parent	Reference								
Claim I anguage	A9m9	processes one of a code and datum designating at least one specific channel of one of a							

port to instant specification.	Language
Sup	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim Lanouage	A9 9

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Support to instant specification.	Language	to receive the transmission of cable	channel 13;	Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is configured for simultaneous use with a cablecast input that conveys both television and radio programming and a broadcast television input.	instructions causes controller, 20, to switch power on to monitor, 202M, and commence transferring the television output transmission of microcomputer, 205, to said monitor, 202M; Automatically, controller, 20, inputs a particular instruction to decoder, 145, via said communications link, that causes decoder, 145, to switch power on to monitor, 202M, and to tune monitor, 202M, in a predetermined fashion.	In so doing, controller, 20, causes monitor, 202M, to receive the decrypted video and audio information of the "Wall Street Week" program, to display the video image of said information, and to emit sound in accordance with said audio	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20. Receiving said please-fully-enable-WSW-on-CC13-at- particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;
	Reference	Page 439 lines 14-15.		Page 29 lines 4-7.	Page 445 line 24 to page 446 line 1.	Page 446 lines 17-21.	Page 437 lines 1-6.	Page 439 lines 9-15.
Support to parent application filed November 3, 1981.	Language			A signal processor apparatus for simultaneous use with a cablecast input that conveys both television and radio programing and a broadcast television input is shown in Figure 1.	and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."		microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X	
Support to parent	Reference			Column 6 lines 23-26.	Column 19 lines 27-29.		Column 19 lines 23-25.	
Claim Language				multichannel cable signal and a broadcast signal, said method further having one step of the group consisting of:	controlling a tuner to tune a converter to receive said at least one			

oort to instant specification.	Language
Sup	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim Language	Agang

				8	7
	•		Page 295 lines 6-8.	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	. J.
			Page 439 lines 9-15.	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;	
specific channel designated by said one of a code and datum;	Column 19 lines 1-4.	In the same fashion, microcomputer, 205, may also instruct signal processor, 200, to monitor single or multiple television channels and/or radio channels for programing of interest to play or record.	Page 419 line 34 to page 420 line 2.	Fig. 7C illustrates methods for monitoring multiple programming channels, selecting programming and information of interest, and receiving said selected programming and information.	
			Page 11 lines 5-10	The present invention consists of an integrated system of methods and apparatus for communicating programming. The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print, and computer programming as well as combined medium recommunication.	· t
controlling a selective transfer device to input to a	Column 19 lines 27-29.	and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."	Page 445 line 24 to page 446 line 1.	instructions causes controller, 20, to switch power on to monitor, 202M, and commence transferring the television output transmission of microcomputer, 205, to said monitor, 202M; Automatically, controller, 20, inputs a particular instruction to decoder, 145, via said communications link, that causes decoder, 145, to switch power on to monitor, 202M, and to tune monitor, 202M, in a predetermined fashion.	4 5 2
			Page 446 lines 17-21.	In so doing, controller, 20, causes monitor, 202M, to receive the decrypted video and audio information of the "Wall Street Week" program, to display the video image of said information, and to emit sound in accordance with said andio	
control signal detector at least a portion of said	Column 19 lines 45- 49.	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening,	Page 451 lines 6-7.	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening	T =

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upport to instant specification.	Language
Sup	Reference
upplication filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anguage	Claim Language

Claim Language	Support to parent	Support to parent application filed November 3, 1981.	IdnS	Support to instant specification.
299	Reference	Language	Reference	Language
-				
at least one		several instruction signals are identified by decoder. 203, and transferred to	Page 23 line 35 to	Subsequently a second series of instructions
	-	microcomputer, 205. These signals instruct	page 24 line 4.	is embedded and transmitted at said program
	-	microcomputer, 205		originating studio. Said second series is
				detected and converted into usable digital signals by decoder, 203, and inputted to
				microcomputer, 205, in the same fashion as the first series.
-			Page 37 line 26 to page	In each decoder, the controller, 39, 44, or 47,
		-	. 20 IIIIE 0.	receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43,
	· ·	-		and 46. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is
				preprogrammed to identify in a
				production apparatus to which said signal
	_			information should be transferred; and to transfer said signals to said apparatus
			1 4 5	
	•		Fage 24 lines 5-6.	Microcomputer, 205, evaluates the initial signal word or words which instruct it to
• .			Dece 461 11.22 7 0	
			rage 451 lines 7-9.	the program instruction set in the first message of the "Wall Street Week" example
	70 07			instructs microcomputer, 205, to
	Column 6 lines 48-50.	through separate paths to three separate	Fage 34 line 35 to page 35 line 1.	I his base band signal is then transferred through separate paths to three separate
specific channel	Column 19 lines 1-4.	In the same fashion, microcomputer, 205,	Page 419 line 34 to	refector devices. Fig. 7C illustrates methods for monitoring
designated by said one of a code and datum:		may also instruct signal processor, 200, to	page 420 line 2.	multiple programming channels, selecting
, , , , , , , , , , , , , , , , , , , ,		channels and/or radio channels for		programming and information of interest, and receiving said selected programming and
		programing of interest to play or record.		information.
			Page 11 lines 5-10.	The present invention consists of an
<i>:</i>				integrated system of methods and apparatus
				for communicating programming. The term
				"programming" refers to everything that is
				or inform, including television, radio
				broadcast print, and computer programming as

oort to instant specification.	Language
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pplication filed November 3, 1981.	Language
Support to parent a	Reference
Claim Language	Aganguar Tunio

Sunguin Tunne	Reference	Language	Reference	anonage
				dand
				well as combined medium programming.
controlling a control	Column 17 lines 28-33.	control information connections	Page 318 lines 2-7.	By such bus means, onboard controller, 14A.
signal detector to search		between signal processor, 130, and the		can cause any on or all of said decoders to
for at least one control		remote decoders which would permit		commence or cease processing and
signal in said at least	-	signal decoder, 130, to alter the methods		transmitting SPAM monitor information and
one		of operation of said remote decoders.		can cause any one or all of said decoders to
		Such control information connections are		change the location or locations that are
		included in signal processing apparatus and methods)		searched for SPAM information. Fig. 5 shows
specific channel	Column 19 lines 1-4	In the same fashion microcommuter 205	Page 419 line 34 to	Fig. 7C illustrates mathods for monitorius
designated by said one		may also instruct signal processor 200 to	120 117 11110 J	milials arounding the molecular for molining
of a code and datum.		monitor single or multiple television	page 420 mile 2.	monumine programming chambers, selecting
		channels and/or radio channels for		programming and information of interest, and
		programing of interest to play or record		information
			-	
			Page 11 lines 5-10.	The present invention consists of an
			١.	integrated system of methods and apparatus
				for communicating programming. The term
				"programming" refers to everything that is
				transmitted electronically to entertain, instruct
				or inform, including television, radio,
				broadcast print, and computer programming as
				well as combined medium programming.
controlling a	Column 19 lines 27-29.	and also microcomputer, 205, may	Page 445 line 24 to	instructions causes controller, 20, to switch
selective transfer to		instruct switch, 216, to turn TV set, 202, on	page 446 line 1.	power on to monitor, 202M, and commence
		and tuner, 215, to tune appropriately to		transferring the television output transmission
		"Wall Street Week."		of microcomputer, 205, to said monitor,
<u>.</u>			-	202M; Automatically, controller, 20, inputs
				a particular instruction to decoder, 145, via
				said communications link, that causes
				decoder, 145, to switch power on to monitor,
				202M, and to tune monitor, 202M, in a
				predetermined fashion.
	٠			
			Page 446 lines 17-21.	In so doing, controller, 20, causes monitor,
-				202M, to receive the decrypted video and
				audio information of the "Wall Street Week"
				program, to display the video image of said
				miornation, and to emit sound in accordance with said audio
input to a computer at	Column 19 lines 43-49.	instruction signals embedded in the	Page 21 lines 23-24.	instruction signals embedded in the

port to instant specification.	Language
Sup	Reference
upplication filed November 3, 1981.	Language
Support to parent a	Reference
Claim I angua	Claim Language

Claim Language	Support to parent	Support to parent application filed November 3, 1981.		Support to instant specification.
	Kelerence	Language	Keterence	Language
least one control signal detected in said at least		"Wall Street Week" programing transmission.		"Wall Street Week" programming transmission.
		When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening,	Page 451 lines 6-7.	When the "Wall Street Weck" transmission begins at 8:30 PM on a Friday evening,
		several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205.	Page 23 line 35 to page 24 line 4.	Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series.
			Page 37 line 26 to page 38 line 8.	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46. Upon receiving any given
				instance of signal information, controller, 39, 44, or 47, is preprogrammed to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus.
				Microcomputer, 205, evaluates the initial signal word or words which instruct it to
		These signals instruct microcomputer, 205,	Page 24 lines 5-6.	
specific channel designated by said one of a code and datum;	Column 19 lines 1-4.	In the same fashion, microcomputer, 205, may also instruct signal processor, 200, to monitor single or multiple television channels and/or radio channels for programing of interest to play or record.	Page 419 line 34 to page 420 line 2.	Fig. 7C illustrates methods for monitoring multiple programming channels, selecting programming and information of interest, and receiving said selected programming and information.
			Page 11 lines 5-10.	The present invention consists of an integrated system of methods and apparatus for communicating programming. The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio,

SWIT 280, Appendix A, Page 34 of 183

oort to instant specification.	Language
IdnS	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anonage	Agung runna

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Support to instant specification.	Language	broadcast print, and computer programming as	well as combined medium programming.	Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programming transmission.	Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series. Microcomputer 205	evaluates the initial signal word or words which instruct it to load at RAM (from the input buffer to which decoder, 203, inputs) and run the information of a particular set of	instructions that follows said word of words just as the information of a file named FILE.EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the disk drive of said disk inputs) and run were the command "FILE"	entered from the console keyboard to the system level of the installed disk operating system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")	A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions. A command is always constituted of at least a	the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining operation in synchronization is called a "combining synch command." Said
İ	Reference			Page 21 lines 20-24.	Page 23 line 35 to page 24 line 16.				Page 44 lines 14-17.	Page 26 lines 20-28.
Support to parent application filed November 3, 1981.	Language			Microcomputer, 205, is preprogramed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission.	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, upon command.			:		
Support to parent	Keterence			Column 19 lines 42-44.	Column 19 lines 46-53.			,		
Claim Language	0			controlling a computer to respond to at least one control signal detected in said at least						

SWIT 280, Appendix A, Page 35 of 183

	Support to parent	Support to parent application filed November 3, 1981	Sum	nort to instant enecification
Claim Language	Reference	Language	Reference	Language
	Column 19 line 60 to column 20 line 1.	At this point, an instruction signal is generated in the television studio originating the programming and is transmitted in the programming transmission. This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205.	Page 25 line 34 to page 26 line 2.	initial signal word or words that preceded the above program instruction set provide another example of a combining synch command in that said word or words synchronized all subscriber station computers in commencing loading and running information for a particular combining.) At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted. Said signal is identified by decoder, 203; transferred to microcomputer, 205;
			page 38 line 8.	47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is preprogrammed to process said information automatically. Controller, 39, is preprogrammed to correct errors in retained received information by means of forward error correction techniques well known in the art; to convert, as may be required, the corrected information, by means of input protocol techniques well known in the art, into digital information that subscriber station apparatus can receive and process; to identify in a predetermined fashion or
		This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204.	Page 26 lines 4-11.	fashions subscriber station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus. Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the received composite video information and

transmit the combined information to TV monitor, 202M. TV monitor, 202M, then displays the image shown in Fig. 1C which is the microcomputer generated graphic of the

The viewer then sees a microcomputer

port to instant specification.	Language
dnS	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference
Claim Language	0

Claim Language	F				٦
	Keference	Language	Reference	Language	
		generated graphic of his own stocks' performance		subscriber's own portfolio performance overlaid on the studio generated graphic. And microcommuter 205	
one specific channel designated by said one of a code and datum;	Column 19 lines 1-4.	In the same fashion, microcomputer, 205, may also instruct signal processor, 200, to monitor single or multiple television channels and/or radio channels for programing of interest to play or record.	Page 419 line 34 to page 420 line 2.	Fig. 7C illustrates methods for monitoring multiple programming channels, selecting programming and information of interest, and receiving said selected programming and information.	
			Page 11 lines 5-10.	The present invention consists of an integrated system of methods and apparatus for communicating programming. The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print and commuter programming see	
	Column 10 1:nog 14 15			well as combined medium programming.	\Box
	Column 19 lines 14-15				
controlling a television monitor to display one of video and audio contained in said at least one	Column 19 lines 27-29.	and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."	Page 445 line 24 to page 446 line 1.	instructions causes controller, 20, to switch power on to monitor, 202M, and commence transferring the television output transmission of microcomputer, 205, to said monitor, 202M; Automatically, controller, 20, inputs a particular instruction to decoder, 145, via said communications link, that causes decoder, 145, to switch power on to monitor, 202M, and to tune monitor, 202M, in a predetermined fashion.	
			Page 446 lines 17-21.	In so doing, controller, 20, causes monitor, 202M, to receive the decrypted video and audio information of the "Wall Street Week" program, to display the video image of said information, and to emit sound in accordance with said audio	
specific channel designated by said one of a code and datum;	Column 19 lines 1-4.	In the same fashion, microcomputer, 205, may also instruct signal processor, 200, to monitor single or multiple television channels and/or radio channels for programing of interest to play or record.	Page 419 line 34 to page 420 line 2.	Fig. 7C illustrates methods for monitoring multiple programming channels, selecting programming and information of interest, and receiving said selected programming and information.	T
			Page 11 lines 5-10.	The present invention consists of an	
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port to instant specification.	Language
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pplication filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anguage	Agam Grant

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Language	integrated system of methods and apparatus for communicating programming. The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print, and computer programming as well as combined medium programming.		Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20. Receiving said please-fully-enable-WSW-on-CC13-at- particular-8:30 information causes controller, 20, in a	predetermined fashion, to prepare particular apparatus apparatus elected apparatus of said station-cable converter box. 201.	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its	associated converter box, 201, to convert its to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	instructions causes controller, 20,; to switch power on to video recorder/player, 217,	controller, 20, causes recorder/player, 217, to record said information of the "Wall Street Week" program.
Reference			Page 437 lines 1-6.	Page 439 lines 9-15.	Page 295 lines 6-8.	Page 439 lines 9-15.	Page 445 lines 24-27.	Page 446 lines 18-23.
Language			microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and may instruct control system, 220, to turn video recorder, 217, on and record "Wall Street Week,"					
Kererence		Column 17 line 65- Column 18 line 4	Column 19 lines 23-27.					
			controlling a video recorder to one of record and play one of video and audio contained in said at least one					

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port to instant specification.	Language
dnS	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim Lanonage	Agmag

Claim Language	Support to parent Reference	Support to parent application filed November 3, 1981. Reference	Supi Reference	Support to instant specification. Language	
specific channel designated by said one of a code and datum; and	Column 19 lines 1-4.	In the same fashion, microcomputer, 205, may also instruct signal processor, 200, to monitor single or multiple television channels and/or radio channels for programing of interest to play or record.	Page 419 line 34 to page 420 line 2.	Fig. 7C illustrates methods for monitoring multiple programming channels, selecting programming and information of interest, and receiving said selected programming and information.	1 <u> </u>
			Page 11 lines 5-10.	The present invention consists of an integrated system of methods and apparatus for communicating programming. The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print, and computer programming as well as combined medium programming	
controlling a selective transfer device to communicate to one of a storage device and an output device said at least	Column 19 lines 23-29	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and may instruct control system, 220, to turn video recorder, 217, on and record "Wall Street Week," and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."	Page 437 lines 1-6.	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular-8:30 information to the controller, 20. Receiving said please-fully-enable-WSW-on-CC13-at-particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	
			Page 295 lines 6-8.	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	
			Page 439 lines 9-15.	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;	
			Page 445 lines 24-27.	instructions causes controller, 20, to switch power on to video recorder/player, 217,	
			Page 446 lines 18-23.	controller, 20, causes recorder/player, 217, to record said information of the "Wall	

ort to instant specification.	Language
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application filed November 3, 1981.	Language
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•	Street Week" program.	instructions causes controller, 20, to switch power on to monitor, 202M, Automatically, controller, 20, inputs a particular instruction to decoder, 145, via said communications link, that causes decoder, 145, to switch power on to monitor, 202M,	and to tune monitor, 202M, in a predetermined fashion.	In so doing, controller, 20, causes monitor, 202M, to receive the decrypted video and audio information of the "Wall Street Week" program, to display the video image of said information, and to emit sound in accordance with said audio	Fig. 7C illustrates methods for monitoring multiple programming channels, selecting programming and information of interest, and receiving said selected programming and information.	The present invention consists of an integrated system of methods and apparatus for communicating programming. The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print, and computer programming as well as combined medium programming.
		Page 445 line 24 to page 446 line 1.	Page 445 line 35 to page 446 line 1.	Page 446 lines 17-21.	Page 419 line 34 to page 420 line 2.	Page 11 lines 5-10.
					In the same fashion, microcomputer, 205, may also instruct signal processor, 200, to monitor single or multiple television channels and/or radio channels for programing of interest to play or record.	
					Column 19 lines 1-4.	
					one specific channel designated by said one of a code and datum.	

,,,	Jumn 8 lines 58-62.	0. The method of Column 8 lines 58-62. Control signals can be passed to the	Page 59 lines 29-31	A SPAM message is the modality wherehy
claim 3, further		. <u>a</u>		the original transmission station that
comprising one step of		transmissions input at switch, 1, and mixer,		originates said message controls specific
the group consisting of:		2.		addressed apparatus at subscriber stations
inputting an instruct-				
to-contact signal to a			Page 290 lines 26-31.	causes the oscillator, 6, then to cause

SWIT 280, Appendix A, Page 40 of 183

pport to instant specification.	Language
nS	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim Language	Ciamin Danguago

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Language	switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	The next day, February 28, 1988 at 2:32 AM, receiving particular time information from said clock, 18, causes said controller, 20, again to cause said switch, 1, and said mixer, 3, to input the transmission of said master channel to said decoder, 30, and to cause said decoder, 30, to commence processing to detect a SPAM end of file signal.	Said message is detected at said decoder, 30, and inputted to the controller, 39, of said decoder, 30. Receiving said message causes said controller, 39, to transmit said Read-Meters-of-Selected-Stations SPAM message to the controller, 20, of the signal processor, 200, of said station.	Executing said ones causes controller, 20, to transmit the current reading information of utilities meter, 262, to a remote metering station computer and cause said computer to process said information. Automatically, controller, 20, activates telephone connection, 22; inputs a particular telephone	
Keterence	. ,	Page 291 lines 21-24.	Page 402 lines 21-26.	Page 403 lines 7-12.	Page 405 lines 20-29.	
Language			An example of such a control signal is an instruction for the apparatus to contact a remote telephone unit.			
Vereigne						Column 18 lines 44-46 Column 18 lines 53-56
	processor		·			-

port to instant specification.	Language
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application filed November 3, 1981.	Language
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Claim I anguage	Ciaiiii Laiiguago

Language		In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 13, then to repeat said pattern.		At the station of Fig. 7 and 7C, signal processor, 200, scans sequentially all channels at its switch, 1, mixer, 3, and decoder, 30, in the fashion of example #5. In due course, one instance of said Select-	AT&T-News-Item message is detected at said decoder, 30, and inputted to the controller, 39, of said decoder, 30.	Receiving said Select-AT&T-News-Item message causes said controller, 39, to transmit said message to the controller, 20, of said signal processor, 200 Determining a	match causes said controller, 39, to transmit said message, with channel mark information that identifies the particular channel in which	said message was embedded, to said controller, 20, via control information transmission means and to continue functioning in the fashion of example #5.	All eight of said messages are commands. The 1st- and 3rd-new-program-message (#5) and the 1st-new-radio-program- message (#5) signals are addressed to microcommiter 205. Each	informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands	are called "guide commands" because they SWIT 280, Appendix A, Page 42 of 183
Keterence		Page 248 line 35 to page 249 line 5.		Page 422 line 23 to page 423 line 10.					Page 267 lines 20-28 from example #5.		
Language		The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.		Signal processor, 200, scans sequentially all channels. When it identifies a signal of interest, it relays that information and the channel identifier, in this illustration, to microcomputer, 205.							
Reference	Column 18 lines 56-66	Column 8 lines 27-29.	Column 2 line 64- Column 3 line 8 Column 7 lines 35-39	Column 18 lines 58-62.				-			 .
		based on said step of receiving said cablecast signal;	·	inputting an instruct- to-select signal to a computer							·

port to instant specification.	Language
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application filed November 3, 1981.	Language
Support to parent	Reference
Claim Language	0

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	-			
				can guide station control apparatus to desired
	0.1 121			programming.)
	Column 17 lines 62-			
	Column 18 lines			
	Column 18 lines 45-68			
	Column 19 lines 45-53		-	
	Column 18 lines 43-45.	Figure 6C illustrates methods for	Page 419 line 34 to	Fig. 7C illustrates methods for monitoring
•		monitoring multiple programing channels	Page 420 line 2.	multiple programming channels, selecting
		and selecting programing and information		programming and information of interest, and
		in a predetermined fashion.		receiving said selected programming and
			-	information.
based on said step of	Column 8 lines 27-29.	The controller, 20, inputs the local	Page 248 line 35 to	In a predetermined fashion, controller, 20,
receiving said cablecast		oscillator, 6, a sequential pattern to select	page 249 line 5.	controls oscillator, 6, to sequence local
signal;		the various channels to be received by		oscillator, 6, in the pattern: cable channel 2,
		switch, 1, and mixers, 2 and 3.		cable channel 4, cable channel 7, cable
				channel 13, wireless channel 5, wireless
,				channel 9, wireless channel 13, then to repeat
				said pattern.
inputting an instruct-	Column 19 lines 60 to	At this point, an instruction signal is	Page 25 line 34 to page	At this point, an instruction signal is
10-generate signar to a	page 20 line 2.	generated in the television studio	26 line 2.	generated at said program originating studio,
combuter		originating the programing and is		embedded in the programming transmission,
		transmitted in the programing transmission.		and transmitted. Said signal is identified by
		This signal is identified by decoder, 203,		decoder, 203; transferred to microcomputer,
		and transferred via processor, 204, to		205;
		microcomputer, 205. This signal instructs		
		microcomputer, 205, to transmit the first	Page 37 line 26 to	In each decoder, the controller, 39, 44, or 47,
		overlay to TV set, 202, for as long as it	page 38 line 8.	receives detected digital information from the
		receives the same instruction signal from		relevant detector or detectors, 34, 37, 38, 43,
		processor, 204. The viewer then sees a		and 46. Upon receiving any given instance of
		microcomputer generated graphic of his		signal information, controller, 39, 44, or 47, is
		own stocks' performance overlay the studio		preprogrammed to correct errors by
		generated graphic.		means of forward error correction techniques
				well known in the art; to convert, as may be
				required, the corrected information, by means
				of input protocol techniques well known in the
				art, into digital information that subscriber
				station apparatus can receive and process;
				to identify in a predetermined fashion or
				fashions subscriber station apparatus to which
				said signal information should be transferred;
				and to transfer said signals to said apparatus

ort to instant specification.	Language
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application filed November 3, 1981.	Language
Support to parent	Reference
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Claim I anouage	Support to parent	Support to parent application filed November 3, 1981.	Supr	Support to instant specification.
9m9mm	Reference	Language	Reference	Language
			Page 26 lines 4-11.	Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphic card onto the
				received composite video information and transmit the combined information to TV
				monitor, 202M. 19 monitor, 202M, then displays the image shown in Fig. 1C which is the microcomputer generated graphic of the
				subscriber's own portfolio performance overlaid on the studio generated graphic.
			Page 451 line 3.	And the Fig. 1C combining is displayed.
based on said step of receiving said cablecast signal;	Column 8 lines 27-29.	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	Page 248 line 35 to page 249 line 5.	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 13, then to repeat said pattern.
	Column 19 lines 17-23.	processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/comparator	Page 435 lines 16-18.	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,
	·	14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.	Page 267 lines 20-28 from example #5.	All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new
				programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)
	-		Page 436 line 9 to page 437 line 3.	Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, The

upport to instant specification.	Language
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application filed November 3, 1981.	Language
Support to parent	Reference
Claim Language	0

Colurm 19 lines 23-25 microcomputer, 205, may instruct tuner, Page 439 lines 1-6. 214, to switch box, 201, to channel X	Claim Language	Support to paten	Support to parent application filed November 3, 1981.	ı	Support to instant specification.
microcomputer, 205, may instruct tuner, Page 439 lines 1-6. 214, to switch box, 201, to channel X Page 439 lines 1-6.		Keierence	Language	Reference	Language
microcomputer, 205, may instruct tuner, Page 439 lines 14-15. 214, to switch box, 201, to channel X Page 439 lines 1-6.					
microcomputer, 205, may instruct tuner, Page 439 lines 14-15. 214, to switch box, 201, to channel X Page 439 lines 1-6.					information so inputted is the aforementioned
Page 439 lines 14-15 microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X Page 439 lines 1-6.		-			determine-whether- to-select instructions that
Page 439 lines 14-15 microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X Page 437 lines 1-6. 214, to switch box, 201, to channel X	-				information and faid and line Wew
Page 439 lines 14-15 microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X Page 437 lines 1-6. Page 439 lines 9-15.					CC13
microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X Page 439 lines 14-15.					Said instructions contain one instance, and
microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X Page 439 lines 1-15.					program-unit-of-interest information that is
microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X Page 439 lines 14-15. Page 437 lines 1-6.					preprogrammed at said microcomputer, 205,
microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X Page 439 lines 1-6. Page 437 lines 1-6.					contains a second instance of specific-WSW
microcomputer, 205, may instruct tuner, Page 437 lines 1-6. 214, to switch box, 201, to channel X Page 439 lines 9-15.					information, which second instance reflects
Page 439 lines 14-15 microcomputer, 205, may instruct tuner, Page 437 lines 1-6. 214, to switch box, 201, to channel X Page 439 lines 9-15.					the wish of the subscriber of said station to
Page 439 lines 14-15 microcomputer, 205, may instruct tuner, Page 437 lines 1-6. 214, to switch box, 201, to channel X Page 439 lines 9-15.		_			view (or record) said "Wall Street Week"
Page 439 lines 14-15. microcomputer, 205, may instruct tuner, Page 437 lines 1-6. 214, to switch box, 201, to channel X Page 439 lines 9-15.					program when said program is transmitted.
microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X Page 439 lines 14-15. 214, to switch box, 201, to channel X Page 439 lines 9-15. Page 439 lines 9-15.					Automatically, microcomputer, 205, compares
Page 439 lines 14-15. microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X Page 439 lines 1-6. Page 439 lines 9-15. Page 439 lines 9-15.					said one instance to said
microcomputer, 205, may instruct tuner, Page 437 lines 1-6. 214, to switch box, 201, to channel X Page 437 lines 1-6. C C C C C C C C C C C C C C C C C C C					program-unit-of-interest information and
microcomputer, 205, may instruct tuner, Page 439 lines 14-15. 214, to switch box, 201, to channel X Page 437 lines 1-6. C C C C C C C C C C C C C C C C C C C					determines a match with said second
Page 439 lines 14-15. microcomputer, 205, may instruct tuner, Page 437 lines 1-6. 214, to switch box, 201, to channel X Page 439 lines 9-15. Page 439 lines 9-15.		-			instance.
Page 439 lines 14-15. microcomputer, 205, may instruct tuner, Page 437 lines 1-6. 214, to switch box, 201, to channel X Page 439 lines 1-6. C C C C C C C C C C C C C C C C C C C					Determining a match causes
Page 439 lines 14-15 microcomputer, 205, may instruct tuner, Page 437 lines 1-6. 214, to switch box, 201, to channel X Page 437 lines 1-6. C C C C C C C C C C C C C C C C C C C					microcomputer, 205, automatically to input
microcomputer, 205, may instruct tuner, Page 437 lines 1-6. 214, to switch box, 201, to channel X Page 437 lines 1-6. C C C C C C C C C C C C C C C C C C C					said please-fully-enable-WSW
Page 439 lines 14-15 microcomputer, 205, may instruct tuner, Page 437 lines 1-6. 214, to switch box, 201, to channel X Page 437 lines 1-6. C C C C C C C C C C C C C C C C C C C					-on-CC13-at-particular- 8:30 information to
Page 439 lines 14-15. microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X Page 437 lines 1-6. C C C C C C C C C C C C C C C C C C C				-	uic connonci, 20.
microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X Page 437 lines 1-6. C C C C C C C C C C C C C C C C C C C		-		Page 439 lines 14-15.	to receive the transmission of cable channel 13;
microcomputer, 205, may instruct tuner, Page 437 lines 1-6. 214, to switch box, 201, to channel X PC C C C C C C C C C C C C C C C C	_	•			
Page 439 lines 9-15.		Column 19 lines 23-25.	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X	Page 437 lines 1-6.	Determining a match causes microcomputer,
					please-fully-enable-WSW-on-
				-	CC13-at-particular- 8:30 information to the
					controller, 20.
· · · · · · · · · · · · · · · · · · ·	- -			-	Receiving said please-fully-enable-
<u> </u>					W S W -OII-CC1 S-at- particular-6:50
					Information causes controller, 20, in a
<u>. </u>					apparatus
				Page 430 lines 0.15	Line 3 contract Lines for contract of
receive the transm				1 485 107 111123 /- 10.	station-cable converter box, 201 to
				•	receive the transmission of cable channel 13;

port to instant specification.	Language
Sup	Reference
application filed November 3, 1981.	Language
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	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted. Said signal is identified by decoder, 203; transferred to microcomputer, 205;	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is preprogrammed to correct errors by means of forward error correction techniques	well known in the art; to convert, as may be required, the corrected information, by means of input protocol techniques well known in the art, into digital information that subscriber station apparatus can receive and process; to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus	Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the received composite video information and transmit the combined information to TV monitor, 202M. TV monitor, 202M, then
	Page 295 lines 6-8.	Page 439 lines 9-15.	Page 25 line 34 to page 26 line 2.	Page 37 line 26 to page 38 line 8.		Page 26 lines 4-11.
			At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. This signal is identified by decoder, 203, and transferred via processor, 204, to	microcomputer, 202. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.		
			Column 19 line 30 Column 19 lines 60 to page 20 line 2.			
			inputting an instruct- to-coordinate signal to a computer			

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port to instant specification.	Language	
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ipplication filed November 3, 1981.	Language	
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Claim Lanouage	Support to parent	Support to parent application filed November 3, 1981.	Supr	Support to instant specification.
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		700		
				displays the image shown in Fig. 1C which is the microcomputer generated graphic of the subscriber's own portfolio performance overlaid on the studio generated graphic.
	Column 19 lines 31-34.	FIG 6C can also illustrate how programing delivered at different times to one place can be co-ordinated to give a multimedia presentation at one time in one place.	Page 451 line 3. Page 18 lines 24-27.	And the Fig. 1C combining is displayed. Fig. 7C is a block diagram of signal processing apparatus and methods selecting receivable information and programming and controlling combined medium, multi-channel presentations.
			page 450 line 27 to	(To accomplish all this has required only that the subscriber of microcomputer, 205, [and other subscribers at other stations] cause the installation and connection of the apparatus shown in the figures of this submission, especially Fig. 7 (and 7C); caused his microcomputer, 205, to be preprogrammed as described above; and preinformed microcomputer, 205, of his wish to view said microcomputer, 205, of his wish to view said efforementioned select-WSW information to be recorded at said microcomputer, 205.) Then the combined medium combining process described above in "One Combined Medium" and in examples #1, #2, #3, #4, etc. commences. And the Fig. 1C combining is displayed. But the combining of Fig. 1C is just part of a larger process. When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, the program instruction set in the first message of the "Wall Street Week" example instructs microcomputer, 205, to generate not one but a plurality overlays. The combining of Fig. 1C is merely the first
based on said step of receiving said cablecast signal;	Column 8 lines 27-29.	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	Page 248 line 35 to page 249 line 5.	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable
				CIVIT 700 4 -1: 4 D - 47 - 110

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ort to instant specification.	Language	
ddnS	Reference	
oport to parent application filed November 3, 1981.	ference Language	
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Support to instant specification. Language	channel 13, wireless channel 5, wireless channel 9, wireless channel 13, then to repeat said pattern. In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200, All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, The information so inputted is the aforementioned determine-whether- to-select instructions that contain said particular specific-WSW information and said enable-WSW-on-CC13 Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said station to view (or record) said "Wall Street Week" program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and determines a match with said second
Supl Reference	Page 435 lines 16-18. Page 267 lines 20-28 from example #5.	Page 436 line 9 to page 437 line 3.
application filed November 3, 1981. Language	processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.	
Support to parent applic Reference	Column 19 lines 17-23.	
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port to instant specification.	Language
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application filed November 3, 1981.	Language
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Language	instance. Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW -on-CC13-at-particular- 8:30 information to the controller, 20.	to receive the transmission of cable channel 13; Determining a match causes microcomputer, 205, automatically to input said	please-fully-enable-wSW-on-CC13-at-particular- 8:30 information to the controller, 20. Receiving said please-fully-enable-WSW-on-CC13-at- particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted. Said signal is identified by decoder, 203; transferred to microcomputer, 205;
Reference	Doco 420 11: 25 14 15	rage 439 lines 14-15. Page 437 lines 1-6.		Page 439 lines 9-15.	Page 295 lines 6-8.	Page 439 lines 9-15.	Page 25 line 34 to page 26 line 2.
Language		microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X					At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs
Reference		Column 19 lines 23-25.				-	Column 19 lines 60 to page 20 line 2.
0							inputting an instruct- to-overlay signal to a computer

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			T	
In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is preprogrammed to correct errors by means of forward error correction techniques well known in the art; to convert, as may be required, the corrected information, by means of input protocol techniques well known in the art, into digital information that subscriber station apparatus can receive and process; to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus	Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the received composite video information and transmit the combined information to TV monitor, 202M. TV monitor, 202M, then displays the image shown in Fig. 1C which is the microcomputer generated graphic of the subscriber's own portfolio performance overlaid on the studio generated graphic.	And the Fig. 1C combining is displayed	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 13, then to repeat said pattern.	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,
Page 37 line 26 to page 38 line 8.	Page 26 lines 4-11.	Page 451 line 3.	Page 248 line 35 to page 249 line 5.	Page 435 lines 16-18.
overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks performance overlay the studio generated graphic.			The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/comparator,
			Column 8 lines 27-29.	Column 19 lines 17-23.
			based on said step of receiving said cablecast signal;	-

Support to instant specification.	Language	All eight of said messages are commands.	The 1st- and 3rd-new- program-message (#5)	and the 1st-new-radio-program-message (#5)	Signals are addressed to microcomputer, 205.	arogramming frontaming to milish and	microcommiter can time against and	merocomputer can tune appropriate station	deceiver and display apparatus in fashions	described below. (riereinalter said commands	are called "guide commands" because they	can guide station control apparatus to desired	programming.)	Receiving said Select-WSW-Program- Unit	message causes decoder, 203, to input	the information segment of said message to	the CPU of microcomputer, 205, The	information so inputted is the aforementioned	determine-whether- to-select instructions that	contain said particular specific-WSW	information and said enable-WSW-on-	CC13	Said instructions contain one instance, and	program-unit-of-interest information that is	preprogrammed at said microcomputer, 205,	contains a second instance of specific-WSW	initiation, which second instance reflects	ine wish of the subscriber of said station to view (or record) said "Wall Street Week"	program when said program is transmitted.	Automatically, microcomputer, 205, compares	said one instance to said	program-unit-of-interest information and	interest mines a mater will said second	Instance. Determining a match causes	microcomputer 205 automatically to input	said please-fully-enable-WSW	-on-CC13-at-particular- 8:30 information to	the controller, 20.	to receive the transmission of cable	
Suj	Reference	Page 267 lines 20-28	from example #5.											Page 436 line 9 to	page 437 line 3.																								Page 439 lines 14-15	
application filed November 3, 1981.	Language	14. Analyzing these identifier signals in a	predetermined fashion, microcomputer,	205, determines that "Wall Street Week" is	being televised on channel A.										-																						-			
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port to instant specification.	Language
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Support to parent application filed November 3, 1981.	Reference Language
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Cloim I andione	Support to parent	Support to parent application filed November 3, 1981.	ddnS	Support to instant specification.
Ciaimi Language	Reference	Language	Reference	Language
				channel 13;
	Column 19 lines 23-25.	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X	Page 437 lines 1-6.	Determining a match causes microcomputer, 205, automatically to input said
				please-fully-enable-WSW-on-
	-			CC13-at-particular- 8:30 information to the controller, 20.
				Receiving said please-fully-enable-
				WSW-on-CCI 3-at- particular-8:30
				information causes controller, 20, in a predetermined fashion, to prepare particular
				apparatus
			Page 439 lines 9-15.	to cause selected apparatus of said
-				stationcable converter box, 201, to
				receive the transmission of capie challier 15,
	:			:
			Page 295 lines 6-8.	selected timer 214 to time to the framework of
				cable channel 13, thereby causing its
	•			associated converter box, 201, to convert its
			Page 439 lines 9-15.	to cause selected apparatus of said
				stationcable converter box, 201, to receive the transmission of cable channel 13:
inputting an instruct-	Column 19 lines 60 to	At this point, an instruction signal is	Page 25 line 34 to page	At this point, an instruction signal is
computer	Pu65 45 11110 4:	originating the programing and is	£0 IIIC £.	generated at said program originating studio, embedded in the programming transmission.
-		transmitted in the programing transmission.		and transmitted. Said signal is identified by
		This signal is identified by decoder, 203,		decoder, 203; transferred to microcomputer,
		microcomputer, 205. This signal instructs		;
		microcomputer, 205, to transmit the first	Page 37 line 26 to	In each decoder, the controller, 39, 44, or 47,
		overlay to IV set, 202, for as long as it	page 38 line 8.	receives detected digital information from the
		receives the same instruction signal from		relevant detector or detectors, 34, 37, 38, 43,
	-	piocessol, 204. The Viewer then sees a		and 40. Upon receiving any given instance of
		own stocks' performance overlay the studio		preproprammed to correct errors by
		generated graphic.		means of forward error correction techniques
				well known in the art; to convert, as may be

Claim I anguage	Support to parent	application filed November 3, 1981.	Supp	ort to instant specification.
Ciaim Language	Reference	Language	Reference	Language

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	required, the corrected information, by means of input protocol techniques well known in the art, into digital information that subscriber station apparatus can receive and process; to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus	Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the received composite video information and transmit the combined information to TV monitor, 202M. TV monitor, 202M, then displays the image shown in Fig. 1C which is the microcomputer generated graphic of the subscriber's own portfolio performance overlaid on the studio generated graphic.	And the Fig. 1C combining is displayed.	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 5, wireless channel 5, wireless channel 9, wireless channel 13, then to repeat said pattern.	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,	All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions
		Page 26 lines 4-11.	Page 451 line 3.	Page 248 line 35 to page 249 line 5.	Page 435 lines 16-18.	Page 267 lines 20-28 from example #5.
				The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/commarator.	14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.
				Column 8 lines 27-29.	Column 19 lines 17-23.	
				based on said step of receiving said cablecast signal;		

oort to instant specification.	Language
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Claim I anguage	Ciaim Language

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Support to instant specification.	Language	described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, The	information so inputted is the aforementioned determine-whether- to-select instructions that contain said particular specific-WSW information and said enable-WSW-on-CC13	Said instructions contain one instance, and program-unit-of-interest information that is	preprogrammed at said microcomputer, 205, contains a second instance of specific-BW information which second instance reflects	the wish of the subscriber of said station to view (or record) said "Wall Street Week" program when said program is transmitted.	Automatically, microcomputer, 202, compares said one instance to said program-unit-of-interest information and determines a match with said second	nstance. Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW -on-CC13-at-particular- 8:30 information to the controller, 20.	to receive the transmission of cable channel 13;	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20. Receiving said please-fully-enable-
lanS	Reference		Page 436 line 9 to page 437 line 3.							Page 439 lines 14-15.	Page 437 lines 1-6.
Support to parent application filed November 3, 1981.	Language					,					microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X
Support to parent	Reference	,								-	Column 19 lines 23-25.
	Claim Language					·					·

SWIT 280, Appendix A, Page 54 of 183

Support to instant specification.	Language
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application filed November 3, 1981.	Language
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Language	WSW-on-CC13-at- particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;	In all cases, signals may convey information in discrete words, transmitted at separate times or in separate locations, that receiver apparatus must assemble in order to receive one complete instruction.	Decoder, 203, is preprogrammed to detect digital information on a particular line or lines (such as line 20) of the vertical interval of its	video transmission input; to correct errors in said information; to convert said corrected information into digital signals usable by microcomputer, 205; and to input said signals to microcomputer, 205, at its	Each one of said decoders is preprogrammed to detect and transfer to said onboard controller, 14, via said bus means, the meter-monitor information of every unencrypted SPAM message in the transmission to which its associated apparatus
		Page 439 lines 9-15.	Page 295 lines 6-8.	Page 439 lines 9-15.	Page 14 lines 22-25.	Page 21 lines 14-19		Page 315 lines 20-24.
Amarina					Buffer/comparator, 8, organizes the data stream that it receives according to a predetermined fashion that enables buffer/comparator, 8, among other things, to assemble signal units from signal words.	(The term "signal unit" hereinafter means one complete signal instruction or information message unit.	The term "signal word" hereinafter means one full discrete appearance of a signal as embedded at one time in one location on a transmission. Examples of signal words are a string of one or more digital data bits encoded together on a single line of video	or sequentially in audio. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable
					Column 7 lines 36-39.	Column 2 lines 63-64.	Column 3 lines 3-8.	Column 15 lines 57-62.
					inputting to a computer a signal containing a message assembled in a network based			

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Language	input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions that follows said word or words just as the information of a file named FILE.EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the disk drive of said disk inputs) and run were the command "FILE" entered from the console keyboard to the system level of the installed disk operating system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")	A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions. A command is always constituted of at least a	(Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining operation in synchronization is called a "combining synch command." Said initial signal word or words that preceded the above program instruction set provide another example of a combining synch command in that said word or words synchronized all	subscriber station computers in commencing loading and running information for a particular combining.) Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series.	evaluates the initial signal word or words which instruct it to load at RAM (from the
Keterence		Page 44 lines 14-17.	Page 26 lines 20-28.	Page 23 line 35 to page 24 line 16.	
Language				These signals instruct microcomputer, 205, to	·
Weighting.				Column 19 lines 48-53.	
			-		

Reference Language Reference Reference generate several graphic video overlays Page 451 lines 7-11. 202, upon command. Page 46 lines 4.8. Page 44 lines 14-17. Page 26 lines 20-28. Page 248 line 35 to oscillation, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	Claim I anguage	Support to parent	Support to parent application filed November 3, 1981.	Supp	Support to instant specification.
generate several graphic video overlays, Page 451 lines 7-11. 202, upon command. Page 26 lines 4-8. Page 44 lines 14-17. Page 26 lines 20-28. Page 27-29. The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	III Language	Reference	Language		Language
generate several graphic video overlays, Page 451 lines 7-11. 202, upon command. Page 451 lines 7-11. Page 26 lines 4-8. Page 44 lines 14-17. Page 44 lines 14-17. Page 26 lines 20-28. Page 26 lines 4-8. Page 44 lines 14-17. Page 26 lines 20-28. Page 24 lines 35 to oscillator, 6, a sequential pattent to select the various channels no be received by switch, 1, and mixers, 2 and 3.					input buffer to which decoder, 203, inputs)
generate several graphic video overlays, Page 451 lines 7-11. and to transmit these overlays to TV set, 202, upon command. Page 46 lines 4-8. Page 44 lines 14-17. Page 46 lines 20-28. Page 26 lines 20-28. Page 44 lines 14-17.				٠	and run the information of a particular set of instructions (Hereinafter such a set of
generate several graphic video overlays, Page 451 lines 7-11. 202, upon command. page 451 lines 7-11. Page 451 lines 7-11. Page 26 lines 4-8. Page 44 lines 14-17. Page 26 lines 20-28. Page 26 lines 20-28. Page 248 line 55 to oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.					instructions that is loaded and run is called a "program instruction set.")
and to transmit these overlays to TV set, 202, upon command. Page 26 lines 4-8. Page 44 lines 14-17. Page 44 lines 14-17. Page 26 lines 20-28. Page 26 lines 20-28. Page 26 lines 20-28. Page 248 line 35 to oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.			generate several graphic video overlays,	Page 451 lines 7-11.	the program instruction set in the first message of the "Wall Street Week" example instructs microcomputer, 205, to generate not one but a plurality overlays. The combining of Fig. 1C is merely the first.
on said step of Column 8 lines 27-29. The controller, 20, inputs the local page 248 line 35 to oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.			and to transmit these overlays to TV set, 202,	Page 26 lines 4-8.	Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the received composite video information and transmit the combined information to TV monitor, 202M.
Column 8 lines 27-29. The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and muxers, 2 and 3.				Page 44 lines 14-17.	A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions.
Column 8 lines 27-29. The controller, 20, inputs the local Page 248 line 35 to oscillator, 6, a sequential pattern to select page 249 line 5. the various channels to be received by switch, 1, and mixers, 2 and 3.				Page 26 lines 20-28.	(Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining operation in synchronization is called a "combining synch command." Said initial signal word or words that preceded the above program instruction set provide another
Said pattern	on said step of ng said cablecast	Column 8 lines 27-29.	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	Page 248 line 35 to page 249 line 5.	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 13, wireless channel 13, then to repeat said pattern.

port to instant specification.	Language
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pplication filed November 3, 1981.	Language
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Claim Language	Reference	Language	Reference	Language
11. The method of claim 4, further comprising one step of the group consisting of:	Column 8 lines 58-62.	Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.	Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
to-contact signal to a processor			Page 290 lines 26-31.	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel
				(that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;
			Page 291 lines 21-24.	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,
		An example of such a control signal is an instruction for the apparatus to contact a remote telephone unit.	Page 402 lines 21-26.	The next day, February 28, 1988 at 2:32 AM, receiving particular time information from said clock, 18, causes said controller, 20, again to cause said switch, 1, and said mixer, 3, to input the transmission of said master channel to said decoder, 30, and to cause said decoder, 30, to commence processing to detect a SPAM end of file signal.
			Page 403 lines 7-12.	Said message is detected at said decoder, 30, and inputted to the controller, 39, of said decoder, 30. Receiving said message causes said controller, 39, to transmit said Read-Meters-of-Selected-Stations SPAM message to the controller, 20, of the signal processor, 200, of said station.
			Page 405 lines 20-29.	Executing said ones causes controller, 20, to transmit the current reading information of utilities meter, 262, to a remote metering station computer and cause said computer to
		-		סומוסוו הסווול מווח המחים מחוז המוול ונוח המוול המוול ונוח המוול ומוול ומוול ומוול המוול המוול ומוול

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Support to instant specification.	Language		process said information. Automatically, controller, 20, activates telephone connection, 22; inputs a particular telephone number		In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 13, then to repeat said pattern.	At the station of Fig. 7 and 7C, signal processor, 200, scans sequentially all channels at its switch, 1, mixer, 3, and decoder, 30, in the fashion of example #5. In due course, one instance of said Select-AT&T-News-Item message is detected at said decoder, 30, and inputted to the controller, 39, of said decoder, 30. Receiving said Select-AT&T-News-Item message causes said controller, 29, to transmit said message to the controller, 20, of said signal processor, 200 Determining a match causes said controller, 39, to transmit said message to the particular channel in which said message was embedded, to said controller, 20, via control information transmission means and to continue functioning in the fashion of example #5.	commands. The 1st- and 3rd-new-program-message (#5) and the 1st-new-radio-program- message (#5) signals are addressed to microcomputer, 205. Each
IdnS	Reference				Page 248 line 35 to page 249 line 5.	Page 422 line 23 to page 423 line 10.	Page 267 lines 20-28 from example #5.
Support to parent application filed November 3, 1981.	Language				The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	Signal processor, 200, scans sequentially all channels. When it identifies a signal of interest, it relays that information and the channel identifier, in this illustration, to microcomputer, 205.	-
Support to parent a	Reference	•		Column 8 lines 61-62 Column 18 lines 44-46 Column 18 lines 53-56 Column 18 lines 56-66 Column 19 lines 45-49	Column 8 lines 27-29.	Column 18 lines 58-62.	-
	Ciaim Language				based on said step of receiving said broadcast signal;	inputting an instruct- to-select signal to a computer	

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upport to instant specification.	Language
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programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 13, then to repeat said pattern.	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted. Said signal is identified by decoder, 203; transferred to microcomputer, 205; In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is preprogrammed to correct errors by means of forward error correction techniques well known in the art; to convert, as may be required, the corrected information, by means of input protocol techniques well known in the art, into digital information that subscriber station apparatus can receive and process; to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus	Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the
	Page 248 line 35 to page 249 line 5.	Page 25 line 34 to page 26 line 2. Page 37 line 26 to page 38 line 8.	Page 26 lines 4-11.
	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.	-
	Column 8 lines 27-29.	Column 19 lines 60 to page 20 line 2.	
·	based on said step of receiving said broadcast signal;	inputting an instruct- to-generate signal to a computer	

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application filed November 3, 1981.	Language
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Claim I anguage	Ciaim Language

received composite video information and transmit the combined information to TV monitor, 202M. TV monitor, 202M, then displays the image shown in Fig. 1C which is the microcomputer generated graphic of the subscriber's own portfolio performance overlaid on the studio generated graphic. And the Fig. 1C combining is displayed.	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 9, wireless channel 13, then to repeat said pattern.	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200, All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.) Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, The information so inputted is the aforementioned determine-whether- to-select instructions that contain said particular specific-WSW information and said enable-WSW-on-
Page 451 line 3.	Page 248 line 35 to page 249 line 5.	Page 435 lines 16-18. Page 267 lines 20-28 from example #5. Page 436 line 9 to page 437 line 3.
	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.
	Column 8 lines 27-29.	Column 19 lines 17-23.
	based on said step of receiving said broadcast signal;	

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CC13 Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said station to view (or record) said "Wall Street Week" program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and determines a match with said second instance. Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW -on-CC13-at-particular-8:30 information to the controller, 20.	to receive the transmission of cable channel 13;	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20. Receiving said please-fully-enable-WSW-on-CC13-at-particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its
	Page 439 lines 14-15.	Page 437 lines 1-6.	Page 439 lines 9-15.	Page 295 lines 6-8.
	·	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X		
		Column 19 lines 23-25.		

oort to instant specification.	Language
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Support to instant specification.	Language	associated converter box, 201, to convert its	to cause selected apparatus of said	stationcable converter box, 201, to	receive the transmission of cable channel 13;	At this point, an instruction signal is	generated at said program originating studio,	embedded in the programming transmission,	and transmitted. Said signal is identified by	205;		In each decoder, the controller, 39, 44, or 47,	relevant detector or detectors, 34, 37, 38, 43,	and 46. Upon receiving any given instance of	signal information, controller, 39, 44, or 47, is	preprogrammed to correct errors by	means of forward error correction techniques	required the corrected information by means	of input protocol techniques well known in the	art, into digital information that subscriber	station apparatus can receive and process;	factions subscriber station annaration to which	said signal information should be transferred;	and to transfer said signals to said apparatus	:	Said signal instructs microcomputer, 205, at	the PC-MicroKey 1300 to overlay the graphic information in its oranbics card onto the	received composite video information and	transmit the combined information to TV	displays the image shown in Fig. 1C which is	the microcomputer generated graphic of the	subscriber's own portfolio performance overlaid on the studio generated graphic.	
Sup	Reference		Page 439 lines 9-15.			Page 25 line 34 to page	26 line 2.				December 27 13.00 25 40	Fage 37 line 26 to	page 50 mir 0.	-								٠				Page 26 lines 4-11.							
application filed November 3, 1981.						At this point, an instruction signal is	generated in the television studio	originating the programing and is	This sional is identified by decoder 203	and transferred via processor, 204, to	microcomputer, 205. This signal instructs	nucrocomputer, 203, to transmit the first overlay to TV set 202 for as long as it	receives the same instruction signal from	processor, 204. The viewer then sees a	microcomputer generated graphic of his	own stocks' performance overlay the studio	generated grapine.																
Support to parent appl	Reference					Column 19 lines 60 to	page 20 line 2.																· ·										
	Ciaim Language				-	inputting an instruct-to-	coordinate signal to a	combuter																		-		-					_

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0	Reference	Language	Reference	Language
			Page 451 line 3.	And the Fig. 1C combining is displayed.
	Column 19 line 30 Column 19 lines 31-34.	FIG 6C can also illustrate how programing	Page 18 lines 24-27.	Fig. 7C is a block diagram of signal
		delivered at different times to one place can		processing apparatus and methods selecting
		be co-ordinated to give a multimedia		receivable information and programming and
				comounist comouned medium, muni-channel presentations.
			page 450 line 27 to	(To accomplish all this has required only
-			page 451 line 11.	that the subscriber of microcomputer, 205,
				[and other subscribers at other stations] cause
				the installation and connection of the
				apparatus shown in the figures of this
				submission, especially Fig. / (and /C); caused
			-	his microcomputer, 205, to be preprogrammed
				as described above; and premiormed
				microcomputer, 205, of his wish to view said
				"Wall Street Week" program by causing the
			-	aforementioned select-WSW information to
				be recorded at said microcomputer, 205.)
	•.			Then the combined medium combining
				process described above in "One Combined
				Medium" and in examples #1, #2, #3, #4, etc.
				commences. And the Fig. 1C combining is
				displayed.
			-	But the combining of Fig. 1C is just part of
		•		a larger process.
				When the "Wall Street Week"
				transmission begins at 8:30 PM on a Friday
			-	evening, the program instruction set in the
				instillessage of the wall succe week
	•			generate not one but a plurality overlays. The
	- 0			combining of Fig. 1C is merely the first.
based on said step of	Column 8 lines 27-29.	The controller, 20, inputs the local	Page 248 line 35 to	In a predetermined fashion, controller, 20,
sional:		the various channels to be received by	page 249 mie 3.	controls oscillator, 6, to sequence local
		switch, 1, and mixers, 2 and 3.		cable channel 4 cable channel 7 cable
				channel 13, wireless channel 5, wireless
				channel 9, wireless channel 13, then to repeat
				said pattern.

port to instant specification.	Language
dnS	Reference
application filed November 3, 1981.	Language
Support to parent app	Reference
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Claim Language Support to parent appl	oplication filed November 3, 1981. Language	Sup Reference	Support to instant specification. Language
Column 19 lines 17-23.	processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.	Page 435 lines 16-18. Page 267 lines 20-28 from example #5.	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200, All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)
		Page 437 line 3.	Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, The information so inputted is the aforementioned determine-whether- to-select instructions that contain said particular specific-WSW information and said enable-WSW-on-CC13 Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said station to view (or record) said "Wall Street Week" program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and determines a match with said second instance. Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW

port to instant specification.	Language
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-on-CC13-at-particular- 8:30 information to the controller, 20 to receive the transmission of cable channel 13;	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20. Receiving said please-fully-enable-WSW-on-CC13-at- particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted. Said signal is identified by decoder, 203; transferred to microcomputer, 205; In each decoder, the controller, 39, 44, or 47, receives detected digital information from the	relevant detector or detectors, 34, 37, 38, 43, and 46. Upon receiving any given instance of
Page 439 lines 14-15.	Page 437 lines 1-6.	Page 439 lines 9-15.	Page 295 lines 6-8.	Page 439 lines 9-15.	Page 25 line 34 to page 26 line 2. Page 37 line 26 to page 38 line 8.	
	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X				At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it	receives the same instruction signal from processor, 204. The viewer then sees a
	Column 19 lines 23-25.				Column 19 lines 60 to page 20 line 2.	
					inputting an instruct- to-overlay signal to a computer	

port to instant specification.	Language
Sup	Reference
upplication filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anguage	~9nn9

Agang	Reference	Language	Reference	Language
		microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.		signal information, controller, 39, 44, or 47, is preprogrammed to correct errors by means of forward error correction techniques well known in the art; to convert, as may be required, the corrected information, by means of input protocol techniques well known in the art, into digital information that subscriber station apparatus can receive and process; to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus
			Page 26 lines 4-11.	Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the received composite video information and transmit the combined information to TV monitor, 202M. TV monitor, 202M, then displays the image shown in Fig. 1C which is the microcomputer generated graphic of the subscriber's own portfolio performance overlaid on the studio generated graphic.
based on said step of receiving said broadcast signal;	Column 8 lines 27-29.	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	Page 451 line 3. Page 248 line 35 to page 249 line 5.	And the Fig. 1C combining is displayed. In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 13, then to repeat said pattern.
	Column 19 lines 17-23.	processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.	Page 435 lines 16-18. Page 267 lines 20-28 from example #5.	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200, All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205.

oort to instant specification.	Language
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upplication filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anomage	29m9

Claim Language	5			ore to morning production.
	Keierence	Language	Reference	Language
				Each informs said microcomputer of new
				programming transmissions to which said
				microcomputer can tune appropriate station
				receiver and display apparatus in fashions
				described below. (Hereinafter said commands
				are called "guide commands" because they
				can guide station control apparatus to desired
			-	programming.)
			Dame 427 18:00 0 00	
			rage 436 line 9 to	Receiving said Select-WSW-Program- Unit
			page 437 line 3.	message causes decoder, 203, to input
				the information segment of said message to
				the CPU of microcomputer, 205, The
				information so inputted is the aforementioned
				determine-whether- to-select instructions that
				contain said particular specific-WSW
	,			information and said enable-WSW-on-
	,			CC13
				Condiminations contains and instruction
				Said filstructions contain one instance, and
				program-unit-of-interest information that is
	,			preprogrammed at said microcomputer, 205,
	•			contains a second instance of specific-WSW
				information, which second instance reflects
				the wish of the subscriber of said station to
				view (or record) said "Wall Street Week"
		-		program when said program is transmitted
				A
				Automatically, nucrocomputer, 205, compares
			•	sald one instance to said
		-		program-unit-of-interest information and
				determines a match with said second
				instance.
				Determining a match causes
				microcomputer, 205, automatically to input
				said please-fully-enable-WSW
	-			-on-CC13-at-particular- 8:30 information to
	-			the controller, 20.
			Page 439 lines 14-15.	to receive the transmission of cable channel 13.
-				(21
	Column 19 lines 23-25.	microcomputer, 205, may instruct tuner, 214, to switch hox 201 to channel X	Page 437 lines 1-6.	Determining a match causes microcomputer,
		-1		200, automatically to imput said

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Support to instant specification.	Language
Sup	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference
Claim Language	Agnaguna uma

please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20. Receiving said please-fully-enable-WSW-on-CC13-at-particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted. Said signal is identified by decoder, 203; transferred to microcomputer, 205;	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46. Upon receiving any given instance of	signal information, controller, 39, 44, or 47, is preprogrammed to correct errors by means of forward error correction techniques well known in the art: to convert, as may be	required, the corrected information, by means of input protocol techniques well known in the art, into digital information that subscriber station apparatus can receive and process:
	Page 439 lines 9-15.	Page 295 lines 6-8.	Page 439 lines 9-15.	Page 25 line 34 to page 26 line 2.	Page 37 line 26 to page 38 line 8.		-
				At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs	microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a	nucrocomputer generated grapme of ms own stocks' performance overlay the studio generated graphic.	
				Column 19 lines 60 to page 20 line 2.			
				inputting an instruct- to-transmit signal to a computer			

SWIT 280, Appendix A, Puge 70 of 183

port to instant specification.	Language	
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pplication filed November 3, 1981.	Language	
Support to parent a	Reference	
Claim I anguaga	Claim Language	

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	÷			to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus
	٠.			:
	,		Page 26 lines 4-11.	Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the
				received composite video information and transmit the combined information to TV
				monitor, 202M. TV monitor, 202M, then displays the image shown in Fig. 1C which is
				the microcomputer generated graphic of the
				overlaid on the studio generated graphic.
			Page 451 line 3.	And the Fig. 1C combining is displayed.
based on said step of receiving said broadcast	Column 8 lines 27-29.	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select	Page 248 line 35 to	In a predetermined fashion, controller, 20,
signal;		the various channels to be received by switch, 1, and mixers, 2 and 3.		oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 13, then to repeat said pattern.
	Column 19 lines 17-23.	processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all	Page 435 lines 16-18.	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,
		signals that it passes to outleft comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is	Page 267 lines 20-28 from example #5.	All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5)
		being televised on channel X.		signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said
				microcomputer can tune appropriate station receiver and display apparatus in fashions
				described below. (Hereinafter said commands are called "ouide commands" because they
				can guide station control apparatus to desired
				programming.)

oort to instant specification.	Language
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application filed November 3, 1981.	Language
Support to parent	Reference
Claim I anguage	Ciaim Language

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Language	Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, The information so inputted is the aforementioned determine-whether- to-select instructions that contain said particular specific-WSW information and said enable-WSW-on-CC13 Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said station to view (or record) said "Wall Street Week" program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and determines a match with said second instance. Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW on-CC13-at-particular- 8:30 information to the controller, 20.	to receive the transmission of cable channel 13; Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20. Receiving said please-fully-enable-WSW-on-CC13-at-particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus
Keterence	Page 436 line 9 to page 437 line 3.	Page 439 lines 14-15.
Language		microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X
Kelerence		Column 19 lines 23-25.

oort to instant specification.	Language
Suppl	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim I anguage	Ciaim Language

Language	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;		In all cases, signals may convey information in discrete words, transmitted at separate times or in separate locations, that receiver apparatus must assemble in order to receive one complete instruction.	Decoder, 203, is preprogrammed to detect digital information on a particular line or lines (such as line 20) of the vertical interval of its video transmission input to correct errors in	said information; to convert said corrected information into digital signals usable by microcomputer, 205; and to input said signals to microcomputer, 205, at its	Each one of said decoders is preprogrammed to detect and transfer to said onboard	
	to cause select stationcable con receive the transn	Then, automatic selected tuner, 21 cable channel 13, associated conver	to cause selecte stationcable con receive the transn		In all cases, signals may in discrete words, transm times or in separate locat apparatus must assemble one complete instruction.	Decoder, 203, is digital informatio (such as line 20) video transmission	said information; to convert sinformation into digital signal microcomputer, 205; and to it to microcomputer, 205, at its	Each one of said to detect and trans	
Neichence	Page 439 lines 9-15.	Page 295 lines 6-8.	Page 439 lines 9-15.		Page 14 lines 22-25.	Page 21 lines 14-19		Page 315 lines 20-24.	
Lunguago					Buffer/comparator, 8, organizes the data stream that it receives according to a predetermined fashion that enables buffer/comparator, 8, among other things, to assemble signal units from signal words.	(The term "signal unit" hereinafter means one complete signal instruction or information message unit.	The term "signal word" hereinafter means one full discrete appearance of a signal as embedded at one time in one location on a transmission. Examples of signal words are a string of one or more digital data bits	or sequentially in audio. The signals for which the decoders are monitoring are likely to be unique digital	
201101010	<u>.</u>			Column 2 line 64- Column 3 line 8 Column 7 line 35 Column 17 line 62- Column 18 line 4 Column 18 line 4	Column 7 lines 36-39.	Column 2 lines 63-64.	Column 3 lines 3-8.	Column 15 lines 57-62.	
					inputting to a computer a signal containing a message assembled in a network		·		_

	. эй	age in the associated apparatus	meter-monitor contain meter or information, and gments causes orocessor systems to ssmit meter records and monitor records in fashions that are w.	contain meter or information. Such information ramming; and the sources and a. is (eg., network tead end stations);	that identifies what	n, controller, 20, equence local r: cable channel 2, nmel 7, cable nel 5, wireless el 13, then to repeat
Support to instant specification.	Language	unencrypted SPAM message in the transmission to which its associated apparatus is tuned.	Commands often contain meter-monitor segments. Said segments contain meter information and/or monitor information, and the information of said segments causes subscriber station signal processor systems to assemble, record, and transmit meter records to remote billing stations and monitor records to remote ratings stations in fashions that are described more fully below.	Meter-monitor segments contain meter information and/or monitor information. Examples of categories of such information include: unique codes for programming; and unique codes that identify the sources and suppliers of computer data origins of transmissions (eg., network source stations, abroadcast stations, cable head end stations); dates and times	monitor information that identifies what programming is available,	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 13, then to repeat said pattern.
aanS	Reference		Page 44 lines 26-32.	Page 49 line 26 to Page 50 line 4.	Page 28 lines 26-27.	Page 248 line 35 to page 249 line 5.
application filed November 3, 1981.	Language	each. They may identify networks, broadcast stations, channels on cable systems, and possibly times of transmission.	·			The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.
Support to parent appl	Reference		· .			Column 8 lines 27-29.
Cloum I might	Ciaiiii Laiiguage					based on said step of receiving said broadcast signal; and

signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as SWIT 280, Appendix A, Page 74 of 183

Subsequently, a second series of instructions is embedded and transmitted at said program

Page 23 line 35 to page 24 line 16.

When the "Wall Street Week" transmission

Column 19 line 45 Column 19 lines 46-53.

computer executable code assembled in a network

inputting to a

begins at 8:30 PM on a Friday evening, several instruction signals are identified by

decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, ... upon command.

originating studio. Said second series is detected and converted into usable digital

Support to instant specification.	Language
InS	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anguage	Ciaim Language

Support to instant specification.	Language	the first series. Microcomputer, 205, evaluates the initial signal word or words which instruct it to load at RAM (from the input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions that follows said word or words just as the information of a file named FILE.EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the disk drive of said disk inputs) and run were the command "FILE" entered from the console keyboard to the	system level of the installed disk operating system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")	A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions. A command is always constituted of at least a	(Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining operation in synchronization is called a "combining synch command." Said initial signal word or words that preceded the above program instruction set provide another example of a combining synch command in that said word or words synchronized all	subscriber station computers in commencing loading and running information for a particular combining.) Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is	detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as
Sup	Reference			Page 44 lines 14-17.	Page 26 lines 20-28.	Page 23 line 35 to page 24 line 16.	
pplication filed November 3, 1981.	Language					These signals instruct microcomputer, 205, to	
Support to parent appl	Reference					Column 19 lines 48-53.	
Claim I minlo	Ciailli Lailguage						

Support to instant specification. Language		the first series. Microcomputer, 205, evaluates the initial signal word or words which instruct it to load at RAM (from the input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")	the program instruction set in the first message of the "Wall Street Week" example instructs microcomputer, 205, to generate not one but a plurality overlays. The combining of Fig. 1C is merely the first.	Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the received composite video information and transmit the combined information to TV monitor, 202M.	A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions.	(Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining operation in synchronization is called a "combining synch command." Said initial signal word or words that preceded the
dnS	Reference		Page 451 lines 7-11.	Page 26 lines 4-8.	Page 44 lines 14-17.	Page 26 lines 20-28.
application filed November 3, 1981.	Language		generate several graphic video overlays,	and to transmit these overlays to TV set, 202,	upon command.	
Support to parent appl	Reference					
1	Claim Language					

channel 9, wireless channel 13, then to repeat

oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless

above program instruction set provide another example of a combining synch command

In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local

Page 248 line 35 to page 249 line 5.

oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.

The controller, 20, inputs the local

Column 8 lines 27-29.

based on said step of receiving said broadcast signal.

Support to instant specification.	Language	said nattern
dnS	Reference	
application filed November 3, 1981.	Language	
Support to parent appl	Reference	
Claim I anguage	Sunguer Carrie	

decoder, 145, to determine, in a predetermined fashion, that power is not on to monitor, 202M, and to respond by	As Fig. 4 shows,in the preferred embodiment, microcomputer, 205, may also automatically substitute for local control, 225, in predetermined fashions in inputting control information to said controller, 20, on the basis of preprogrammed instructions and information previously inputted to said microcomputer, 205.	cause microcomputer, 205, to input particular preprogrammed instructions to said controller, 20,	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200, of the station of Fig. 7 and 7C	Via a conventional multi- channel cable transmission, in a fashion well known in the art, four channels of conventional television programming and two conventional FM radio signals are inputted to a first alternate contact of switch, 1, and to mixer, 2.	Example #5 begins with the embedding and transmitting, at the remote station that originates the "Wall Street Week" broadcast,
Page 444 lines 33-34.	Page 288 lines 13-20.	Page 445 lines 8-10.	Page 435 lines 16-18.	Page 248 lines 22-26 from example #5.	Page 250 lines 13-16 from example #5.
When that time comes, microcomputer, 205, receives no program identification signals whatever from TV signal decoder, 203, which indicates that the set, 202, is not on.	Microcomputer, 205, instructs signal processor, 200, to		pass all program and channel identifiers on all programing being cablecast on the multi-channel system.		
Column 19 lines 9-20.					·
responded to by a computer, said method further comprising the steps of:	·				
	Column 19 lines 9-20. When that time comes, microcomputer, 205, receives no program identification signals whatever from TV signal decoder, 203, which indicates that the set, 202, is not on.	Column 19 lines 9-20. When that time comes, microcomputer, 205, receives no program identification signals whatever from TV signal decoder, 203, which indicates that the set, 202, is not on. Microcomputer, 205, instructs signal processor, 200, to	Column 19 lines 9-20. When that time comes, microcomputer, 205, receives no program identification signals whatever from TV signal decoder, 203, which indicates that the set, 202, is not on. Microcomputer, 205, instructs signal processor, 200, to	Column 19 lines 9-20. When that time comes, microcomputer, 205, receives no program identification signals whatever from TV signal decoder, 203, which indicates that the set, 202, is not on. Microcomputer, 205, instructs signal Page 288 lines 13-20. processor, 200, to Page 445 lines 8-10. Page 445 lines 8-10. Page 435 lines 16-18.	Column 19 lines 9-20. When that time comes, microcomputer, 205, receives no program identification signals whatever from TV signal decoder, 203, which indicates that the set, 202, is not on. Microcomputer, 205, instructs signal Page 288 lines 13-20. processor, 200, to processor, 200, to all program and channel identifiers on all programing being cablecast on the multi-channel system. Page 248 lines 16-18. Page 248 lines 22-26 from example #5.

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Support to instant specification	Language	of the first message of the "Wall Street Week"	 Then, in a predetermined fashion, control processor, 39J, determines that said first	command contains subject matter	meter-monitor information causing said control processor, 394, to transmit a message	that consists of execution segment	microcomputer, 205, (and that causes	information of the meter- monitor segment	immediately following said execution segment	information as new programming now being transmitted on the channel of the channel	mark of said meter-monitor segment segment)	then meter-monitor segment information that	includes the "program unit identification code" and subject matter information of said	first command and the channel mark of	cable channel 13 (Said message whose	transmission is caused by receiving said first	fashion described more fully below, to tune	automatically to receive the program that said	"program unit identification code" identifies if said program is of interest	All eight of said messages are commands	The 1st- and 3rd-new-program-message (#5)	and the 1st-new-radio-program- message (#2) signals are addressed to microcomputer, 205.	Each informs said microcomputer of new programming transmissions to which said	microcomputer can tune appropriate station	described below. (Hereinafter said commands	can guide station control apparatus to desired	programming.)
Sun	Reference		Page 252 lines 15-35 from example #5.													-				Page 267 lines 20-28	from example #5.						
lication filed November 3, 1981	Language										`																
Support to parent applicati	Reference										-																
	Claim Language		•			-																					

upport to instant specification.	Language
Sup	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference
Claim Language	9000

Support to instant specification.	Language	microcomputer, 205, may also automatically substitute for local control, 225, in predetermined fashions in inputting control information to said controller, 20, on the basis of preprogrammed instructions and information previously inputted to said microcomputer, 205.	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,	All eight of said messages are commands. The 1st- and 3rd-new-program-message (#5) and the 1st-new-radio-program- message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	In example #5, controller, 12, is preprogrammed to process monitor information, and completing the controlled functions invoked by any given message causes controller, 12, automatically to process the information of said message as monitor information, in the fashion of controller, 39, of decoder, 203, in example #3 Automatically, control processor, 12J, transfers to buffer/comparator, 14, via matrix switch, 12 I, header information that identifies a transmission of monitor information of available programming then all of the information that is recorded at said SPAM-input-signal memory. (In each example #5 case, the information that is transferred-together with its newly added header
Sup	Reference	Page 288 lines 16-20.	Page 435 lines 16-18.	Page 267 lines 20-28 from example #5.	Page 258 line 28 to page 259 line 12 from example #5.
application filed November 3, 1981.	Language	Signal processor, 200, receives this instruction from microcomputer, 205, at its processor or monitor, 12, which reacts,	in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/comparator, 14		
Support to parent appli	Reference				
Claim I anguage	Oranin Language	·			

SWIT 280, Appendix A, Puge 79 of 183

port to instant specification.	Language
Sup	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference
January I miolo	Cianin Language

Support to instant specification.	Language	informationcontinues to be called by its previously assigned name; for example, the st-old-radio-program-nessage (#5)	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection	pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to decoder, 30.	track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.	Said radio-detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 99.0 MHz. Automatically oscillator, 6, causes mixer, 2, to select said frequency and input it, at a fixed frequency, to decoder,	After determining, in a predetermined fashion, that a particular predetermined period of time has elapsed from the input of said 99.0 MHz frequency to decoder, 40, controller, 20, causes oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 100.0 MHz.	Example #5 begins with the embedding and transmitting, at the remote station that originates the "Wall Street Week" broadcast, of the first message of the "Wall Street Week"	SWIT 280, Appendix A, Page 80 of 183
dnS	Reference		Page 257 line 24 to page 258 line 19.			Page 265 line 27 to Page 266 line 21.		Page 250 lines 13-17.	
Support to parent application filed November 3, 1981.	Language		The local oscillator, being thus sequenced, will allow each signal decoder, 30 and 40, to receive a particular frequency at a particular time interval.					This will define the timing of the composite outputs of the digital detectors, 34, 37, and 38 in FIG. 2A, and 43 in FIG. 2B.	
Support to parent a	Reference		Column 9 lines 53-57.						
Cloim I anamage	Ciailii Laiiguage		inputting at least a portion of one of said broadcast signal and said cablecast signal to	a control signal detector to detect at least one control signal; and					

port to instant specification.	Language
Sup	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anouage	Aganguar

1						I.
	program which is the message of the first combining synch command.	Receiving said embedded information causes the binary SPAM information of said first command, with error correcting information, to be detected at detector, 34;	said information to radio decoder, 42, which decodes the the embedded signal information of said command and transmits said signal information to digital detector, 43, which detects the binary information with error correcting bit information of said command and transfers said binary and bit information to controller, 44.	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46.	Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is configured for simultaneous use with a cablecast input that conveys both television and radio programming and a broadcast television input. The inputted information is the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. Decoder, 30, which is shown in detail in Fig. 2A, and decoder, 40, which is shown in Fig.	2B, detect signal information embedded in the respective inputted television and radio frequencies, and output said signals and said modified signals to buffer/comparator, 8. In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,
		251 lines 8-11.	Page 263 lines 19-24.	Page 37 lines 26-28.	Page 29 lines 4-15. Page 29 line 33 to page 30 line 5.	Page 435 lines 16-18
					A signal processor apparatus for simultaneous use with a cablecast input that conveys both television and radio programing and a broadcast television input is shown in Figure 1. As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. If one returns to FIG. 1, one sees that the three separate lines of information	ourputted from 1 V signal decoder, 30, are then gated to a buffer/comparator, 8, which also receives other inputs from the other separate receivers comprising similar filters, demodulators, and decoders for other channels of interest. [processor or monitor, 12, reacts] in a predetermined fashion by passing also externally to microcomputer, 205, all
					Column 6 lines 23-30.	Column 19 lines 18-20.
					outputting said at least one control signal	

oort to instant specification.	Language
Supp	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim I anguage	Cianii Languago

	All eight of said messages are commands. The 1st- and 3rd-new-program-message (#5)	signals are addressed to microcomputer, 205.	programming transmissions to which said microcomputer can tune appropriate station	described below. (Hereinafter said commands	are called "guide commands" because they can guide station control apparatus to desired	programming.)	In example #5, controller, 12, is preprogrammed to process monitor	information, and completing the controlled	runctions invoked by any given message causes controller, 12, automatically to process	the information of said message as monitor	decoder, 203, in example #3	Automatically, control processor, 12J,	ransfers to buffer/comparator, 14, via matrix switch, 12 I, header information that identifies	a transmission of monitor information of	available programming then all of the information that is recorded at earl SDAM	input-signal memory. (In each example #5	case, the information that is transferred	together with its newly added header	informationcontinues to be called by its	previously assigned name; for example, the lst-old-radio-program-message (#5).)
	Page 267 lines 20-28 from example #5.				,		Page 268 line 28 to page 269 line 12 from	example #5.				-								
signals that it passes to buffer/ comparator,	14.		•																	
					-															
														-						

13. The method of	Column 9 lines 53-55.	13. The method of Column 9 lines 53-55. The local oscillator, being thus sequenced, Page 257 line 24 to	Page 257 line 24 to	Said detection-complete information causes
claim 3, wherein said		will allow each signal decoder, 30 and 40,	page 258 line 19.	controller, 20, to cause oscillator, 6, to cause
received cablecast		to receive a particular frequency at a		the selection of the next channel in the
signal is one of received		particular time interval.		predetermined television channel selection
in information				pattern: wireless channel 9. Automatically
communicated via a				oscillator, 6, causes mixer, 3, to select the

Claim Language	Support to parent	t application filed November 3, 1981.	Supp	ort to instant specification.
29m9	Reference	Language	Reference	Language

Koference Language Reference Language Reference Fig. 16 Fig. 26 Fig. 265 line 27 to the transmitted on the cable and the entire call angle of broadcast television antenna of conventional design. Column 15 lines 57-62. The most identify each programming or data unit received and the source of cach they may identify networks. Column 15 lines 57-62. They may identify each programming or data unit received and the source of cach they may identify networks. Page 29 lines 11-15. The first column of data unit received and the source of cach and unit received and the source of cach and unit received and the source of cach and unit received and the source of cach they may identify networks. Page 315 lines 20-24. On the most identify networks. Page 315 lines 20-24. On the most identify networks.	Claim Language	maind on modding	Support to parent application filed November 3, 1981.		Support to instant specification.
Column 6 lines 26-30. As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. Column 15 lines 57-62. The gains for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify hetworks, broadcast stations, channels on cable		Reference	Language	Reference	Language
Column 6 lines 26-30. As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television transmissions available to a local television antenna of conventional design. Column 15 lines 57-62. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable					
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As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable					frequency of interest, at a fixed frequency, to
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable					Controller, 20, has capacity for keeping
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable				-	track of elapsed time, and after determining i
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable					a predetermined fashion that a particular
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television natemna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable					predetermined period of time has clapsed froi
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable					the input of wireless channel 9 to decoder, 30
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable					the colonial of the many desired in the
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable					the selection of the next channel in the
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable		-		-	predetermined television channel selection
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable					panein: wireless challiel 15.
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable				Page 265 line 27 to	Said radio-detection-complete information
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable				Page 266 line 21.	causes controller, 20, to cause oscillator, 6
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable					to cause the selection of the next frequency ir
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable					the predetermined radio frequency selection
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable					pattern: 99.0 MHz. Automatically oscillator.
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable					6, causes mixer, 2, to select said frequency
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable					and input it, at a fixed frequency, to decoder,
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable	•				40
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable					After determing, in a
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable					predetermined racing of time has alonged from
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks , broadcast stations, channels on cable		٠.			the input of said 99.0 MHz frequency to
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks , broadcast stations, channels on cable		-		-	decoder, 40, controller, 20, causes
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable					oscillator, 6, to cause the selection of the next
As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable		•			frequency in the predetermined radio
range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable		06 76 20 17 2000			frequency selection pattern: 100.0 MHz.
transport transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable		Column o lines 20-30.	As snown, the input signals are the entire	Page 29 lines 11-15.	The inputted information is the entire range o
range of broadcast television transmissions available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable			range of frequencies or channels		frequencies or channels transmitted on the
available to a local television antenna of conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable			ross of boodsoot of		cable and the entire range of broadcast
conventional design. The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable			available to a local television automo of		television transmissions available to a local
The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable			conventional design.		terevision antenna of conventional design.
		Column 15 lines 57-62.	The signals for which the decoders are	Page 315 lines 20-24.	Each one of said decoders is preprogrammed
			monitoring are likely to be unique digital		to detect and transfer to said onboard
			codes that may identify each programing		controller, 14, via said bus means, the
			or data unit received and the source of		meter-monitor information of every
			each. They may identify networks,		unencrypted SPAM message in the
			broadcast stations, channels on cable		transmission to which its associated apparatus

Support to instant specification.	Language	Commands often contain meter-monitor segments. Said segments contain meter information and/or monitor information, and the information of said segments causes subscriber station signal processor systems to assemble, record, and transmit meter records to remote billing stations and monitor records to remote ratings stations in fashions that are described more fully below	Meter-monitor segments contain meter information and/or monitor information. Examples of categories of such information include: unique codes for programming; and unique codes that identify the sources and suppliers of computer data. origins of transmissions (eg., network source stations, broadcast stations, cable head end stations);	monitor information that identifies what programming is available,	switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	A SPAM message is the modality whereby the
Su	Reference	Page 44 lines 26-32.	Page 49 line 26 to Page 50 line 4.	Page 28 lines 26-27.	Page 290 lines 26-31.	Page 291 lines 21-24.	Page 59 lines 29-31.
Support to parent application filed November 3, 1981.	Language	transmission.			Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.		-
Support to parent	Reference				Column 8 lines 58-60.		
	Claim Language				in consequence of information communicated via said telecommunications network, said method further comprising the step of		

Claim Language	Support to parent	Support to parent application filed November 3, 1981.	ians	Support to instant specification.
Craim Lunguage	Reference	Language	Reference	Language
	,	_		said message controls specific addressed
	Column 8 lines 62-65.	The processor unit 12 has the capacity to	Page 50 lines 20_31	apparatus at subscriber stations.
		identify instruction signals for controller,	1 age 57 mics 27-51.	the original transmission station that
		20, and pass them to controller, 20, over		originates said message controls specific
		control information lines.		addressed apparatus at subscriber stations.
			For example, page 531	Said contained messages that are addressed to
			lines 17-22.	apparatus such as decoder, 30, PRAM
				controller, 20, and switch controller, 20A, that
				exist within the equipment case of a signal
				processor, 200, are inputted to said apparatus
				from controller, 12, via controller, 20, rather
	Column 9 lines 47-52	The controller 20 is programed to	Dage 248 line 17 to	Cional magazine 200 :
		sequence the local oscillator 6 to select	1 ago 249 mm 17 to	Signal processor, 200, is preprogrammed
		each desired frequency for a specific time		Over the air (hereing for "wireless")
	-	interval in accordance with a		transmission or fragmency in the locality of the
		predetermined pattern. This pattern may be		subscriber station of Right and well on the
		selected in accordance with standard		substituct station of the 3 as well as tile standard broadcast and cablecast practices that
		broadcast and cablecast practices known to		annly on said transmissions and framencies
	•	exist on that transmission line or frequency		In a predetermined fashion controller 20
				controls oscillator 6 to sequence local
				oscillator 6 in the notions, onthe puttern of the notion
				oscinator, o, in the pattern: capte channel 2,
			,	cable channel 4, cable channel /, cable
			•	channel 13, wireless channel 5, wireless
				channel 9, wireless channel 13, then to repeat
			-	said pattern.
			Page 257 line 24 to	Said detection-complete information causes
			page 258 line 19.	controller 20 to cause oscillator 6 to cause
•				the selection of the next channel in the
				predetermined television channel selection
				pattern: wireless channel 9 Automatically
		`		perioris respect to the second of the
				frequency of channel 0 and input said
				factorist of channel 2 and input said
				requency of interest, at a fixed frequency, to
				Controller 20 has capacity for
				keeping track of elapsed time, and after
_				determining in a predetermined fashion that a
				particular predetermined period of time has
•				

_														_			_	_	_	_	_	_				_	
	Support to instant specification.	Language	elapsed from the input of wireless channel 9 to	decoder, 30, controller, 20, causes	oscillator, 6, to cause the selection of the next	channel in the predetermined television	Controller, 20, has capacity for controlling the	operation of all elements of the signal processor		The first stage of said sequence involves	transferring audit information to a particular first host computer at a first remote station.	causes controller, 20, to cause recorder, 16,	to transmit all recorded meter audit records	and particular other audit information to	telephone connection, 22, which causes said	connection, 22, to transmit said records and	information to said first computer.	Buffer/comparator, 14, receives	signal information that is meter information	and/or monitor information from controller,	12, and from other inputs; organizes said	received information into meter records and/or	monitor records (called, in aggregate,	hereinafter, "signal records") in a	predetermined fashion or fashions; and	transmits said signal records to a digital	recorder, 16,
	Sup	Reference					Page 33 lines 18-20.		7	Page 273 lines 4-6.		Page 273 lines 21-25.						Page 31 line 30 to	page 32 line 1.								
	application filed November 3, 1981.	Language					The controller, 20, also inputs the digital	recorder, 16, to direct it to output the information from the memory of the	recorder, 16, to telephone connection, 22,	and thence to the collection site at the	remote geographical location.					-		Upon determining in a predetermined	fashion that a signal word or unit should be	passed,buffer/comparator, 14, transmits the	combined information to a digital recorder,	16.					
	Support to parent appl	Reference					Column 8 lines 46-50.											Column 8 lines 4-7.									
	Claim I anguage	Sanging					communicating to a	remote station one of a code and datum																			

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Page 86
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Appendix.
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C,
280,
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SWIT
SK

Controller, 12, receives the signals inputted

Page 31 lines 10-14.

together on a single line of video or

sequentially in audio.

The term "signal word" hereinafter means one

or a ...

Page 14 line 32 to page 15 line 2.

transmission. Examples of signal words are a string of one or more digital data bits encoded

full discrete appearance of a signal as embedded at one time in one location on a

(The term "signal unit" hereinafter means one

| Page 14 lines 27-29.

(The term "signal unit" hereinafter means

Column 2 lines 63-66.

signal units are a unique code identifying a

information message unit. Examples of

one complete signal instruction or

embedded at one time in one location on a

The term "signal word" hereinafter means one full discrete appearance of a signal as

Column 3 lines 3-8.

programing unit, or a ...

are a string of one or more digital data bits

transmission. Examples of signal words

encoded together on a single line of video

or sequentially in audio.

Processor or monitor, 12, analyzes, in a

Column 7 lines 50-54.

designating one of

message unit. Examples of signal units are a unique code identifying a programming unit,

complete signal instruction or information

ort to instant specification.	Language	
Suppor	Reference	
application filed November 3, 1981.	Language	
Support to parent a	Reference	
Claim Language	Cianin Language	

Support to parent application filed November 3, 1981. Reference Language Dre-determined fashion, the signal values of the signal values.
Column 7 lines 59-60.
Column 7 lines 65-67.
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SWIT 280, Appendix A, Puge 87 of 183

	Support to parent appli	application filed November 3, 1981.	Suns	Support to instant specification
Claim Language	Reference	Language	Reference	Language
_		_		to contract the colonics of the way the feet on the
				to cause the selection of the next hequeined in
				me predectioning ladio including selection
				patietii: 99.0 Miliz. Automatically oscillator,
				o, causes mixer, 2, to select said frequency
				and input it, at a fixed frequency, to decoder,
				After determining in a predetermined
-				fashion that a narticular predatermined period
				of time has elansed from the input of said 00 0
				MHz frequency to decoder 40 controller 20
				causes oscillator 6 to cause the selection
				of the next frequency in the production
			•	radio frequency selection pattern: 100.0 MHz.
		This will define the timing of the	Page 250 lines 13-17.	Example #5 begins with the embedding and
		composite outputs of the digital detectors,		transmitting, at the remote station that
		34, 37, and 38 in FIG. 2A, and 43 in FIG. 2B.		originates the "Wall Street Week" broadcast,
				of the first filessage of the first
				combining synch command.
			2.71 mes 0-11.	Receiving said embedded information causes
				the binary SPAIM information of said first
				to be detected at detector 34.
			-	to be detected at detector, 54,
			Page 263 lines 19-24.	said information to radio decoder, 42,
				which decodes the the embedded signal
				information of said command and transmits
				said signal information to digital detector, 43,
				which detects the binary information with
				error correcting bit information of said
				command and transfers said binary and bit
		-		mionitation to connoiner, 44.
			Page 37 lines 26-28.	In each decoder, the controller, 39, 44, or 47.
	-)	receives detected digital information from the
				relevant detector or detectors, 34, 37, 38, 43,
	;			and 46.
	Column 7 lines 6-11.	If one returns to FIG. 1, one sees that the	Page 29 line 33 to page	Decoder, 30, which is shown in detail in Fig.
		uree separate lines of information	30 line 5.	2A, and decoder, 40, which is shown in Fig.
		l outputted from 1 v signal decoder, 50, are	_	zb, detect signal information embedded in the

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		then gated to a buffer/comparator, 8, which also receives other inputs from the other separate receivers comprising similar filters, demodulators, and decoders for		respective inputted television and radio frequencies, and output said signals and said modified signals to buffer/comparator, 8.
	Column 7 lines 47-49.	other channels of interest. Buffer/comparator, 8, passes signal words and units not identified as requiring decryption directly to processor or monitor,	Page 30 lines 29-30.	Buffer/comparator, 8, transfers signals that do not require decryption directly to processor or controller, 12.
	Column 7 lines 50-54.	12. Processor or monitor, 12, analyzes, in a pre-determined fashion, the signal words and units that it receives and determines	Page 31 lines 10-14.	Controller, 12, receives the signals inputted from buffer/comparator, 8, and decryptor, 10; analyzes said signals in a predetermined
		whether they are to be passed to external equipment or to buffer/comparator, 14, for further processing or both.		fashion; and determines whether they are to be transferred to external equipment or to buffer/comparator 14 or both
information to be delivered in said received cablecast	Column 7 lines 54-58.	If a signal or signals are to be passed externally, processor unit, 12, identifies, in a pre-determined fashion, the external	Page 31 lines 14-18.	If a signal or signals are to be transferred externally, in a predetermined fashion
signal.		equipment to which the signal or signals are addressed and passes them to appropriate jack ports for external transmission.		to which the signal or signals are addressed and transfers them to the appropriate port or ports for external transmission.

A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted.	The second message is of the information associated with the second combining synch command. Said second command has a "00" header, an execution segment, and a metermonitor
Page 59 lines 29-33.	Page 25 line 34 to page 26 line 1.	Page 90 lines 4-7. Applicants teach this as the composition of the instruction signal of page 25 line 34. See
At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.		
Column 19 lines 60-63.		
14. A method of controlling		

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Cialili Laliguage	Reference	Language	Reference	Language
i			page 26 lines 1-4 and	
			20-26, page 89 lines 3-	
			6, and page 90 lines 4-	
at least one of	Column 17 lines 47-53.	FIG 6 illustrates one possible	Page 390 lines 30-35.	Fig. 7 exemplifies one embodiment of an
		configuration of equipment in a home or		ultimate receiver station; is a subscriber
		office or other television and/or radio		station in the field distribution system, 93, of
		receiving site. Consideration of FIGS.		the intermediate transmission station of Fig. 6;
		6F and 6G is facilitated by consideration,		and may be a home, an office, a theater, a
		first, of individual examples of the types		hotel, or any other station where programming
		of co-ordinated presentations that the		such as television or radio is displayed to
		signal apparatus and methods described here can permit		persons.
		<u> </u>	Page 396 lines 8-10.	Features benefits and modes of operation of
				the station of Fig. 7 are demonstrated in the
				following individual examples.
a plurality of receiver	Column 3 lines 48-51.	Another method has application at receiver	Page 12 lines 30-35.	It is the further purpose of this
stations each including		sites such as private homes or public places		invention to provide means and methods for
		like theaters, hotels, brokerage offices, etc.,		the automation of ultimate receiver stations.
		whether commercial establishments or not.		Such ultimate receiver stations may be
	•			private homes or offices or commercial
			,	establishments such as theaters, hotels, or
•				brokerage offices.
a receiver,	Column 19 lines 28-29.	and tuner. 215. to tune appropriately to	Page 445 line 35 to	and to tune monitor 202M in a
		"Wall Street Week."	page 446 line 1.	predetermined fashion.
			Page 446 lines 17-21.	In so doing, controller, 20, causes monitor
				202M. to receive the decrynted video and
				audio information of the "Wall Street Week"
				program, to display the video image of said
				information, and to emit sound in accordance
				with said audio
a signal detector,	Column 6 lines 48-50.	This base band signal is then transmitted	Page 34 line 35 to page	This base band signal is then transferred
		through separate paths to three separate	35 line 1.	through separate paths to three separate
3. 1	70.50	defector devices.		detector devices.
a processor, each of	Column 6 lines 23-26.	A signal processor apparatus for	Page 29 lines 4-7.	Fig. 2 shows one embodiment of a
said plurality of		simultaneous use with a cablecast input that		signal processor. Said processor, 26, is
receiver stations		conveys both television and radio		configured for simultaneous use with a
adapted to		programing and a broadcast television		cablecast input that conveys both television
		Input is shown in Figure 1.		and radio programming and a broadcast

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Language	television input.	Said signal is identified by decoder, 203; transferred to microcomputer, 205; and	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the	relevant detector or detectors, 34, 37, 38, 43,	signal information, controller, 39, 44, or 47, is	preprogrammed to identify in a	predetermined fashion or fashions subscriber station apparatus to which said signal	information should be transferred; and to transfer said signals to said apparatus.	In due course, while scanning sequentially	all channels in the fashion of example #5, the	apparatus of the signal processor, 200,	All eight of said messages are commands.	The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5)	signals are addressed to microcomputer, 205.	Each informs said microcomputer of new	programming transmissions to which said	microcomputer can tune appropriate station receiver and display apparatus in fashions	described below. (Hereinafter said commands	are called "guide commands" because they	can guide station control apparatus to desired programming.)	Receiving said Select. WSW. Program. I Init	message causes decoder, 203, to input	the information segment of said message to	the CPU of microcomputer, 205, The	information so inputted is the aforementioned	determine-whether- to-select instructions that	contain said particular specific- w S w	information and said enable- WSW-on-CC13	Said instructions contain one instance, and	program-unit-of-interest information that is
Reference		Page 26 lines 1-2.	Page 37 line 26 to page 38 line 8.						Page 435 lines 16-18.				Page 267 lines 20-28 from example #5	-	-									Page 436 line 9 to	page 437 line 3.		• .			
Language		This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205.							processor or monitor, 12, which reacts,	in a predetermined fashion by passing also	signals that it passes to buffer/ comparator,	14. Analyzing these identifier signals in a	predetermined fashion, microcomputer, 205. determines that "Wall Street Week" is	being televised on channel X.																
Reference		Column 19 lines 63-64.							Column 19 lines 17-23.							,							. •							
Claim Language	i.	detect at least one control signal			·			-																						

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- Q Q	preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said station to view (or record) said "Wall Street Week" program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and determines a match with said second instance. Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW on-CC13-at-particular-8:30 information to the controller, 20.	to receive the transmission of cable channel 13;	Signal processor, 26, has a controller device which includes programmable RAM controller, 20, ROM, 21, that may contain unique digital code information capable of identifying signal processor, 26, and the subscriber station of said processor, 26, uniquely; an automatic dialing device 24; and a telephone unit, 22 Controller, 20, has capacity for controlling the operation of all elements of the signal processor	Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series. Microcomputer, 205, evaluates the initial signal word or words which instruct it to load at RAM (from the input buffer to which decoder, 203, inputs)
		Page 439 lines 14-15.	Page 33 lines 7-20.	Page 23 line 35 to page 24 line 16.
			The signal processor apparatus also has a controller device which includes programable random access memory controller 20, read only memory 21 that may contain a unique digital code capable of identifying the signal processing apparatus uniquely, an automatic dialing device 24, and a telephone unit, 22. The controller, 20, governs the operation of all operating elements of the apparatus.	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, upon command.
			Column 8 lines 20-27.	Column 19 lines 46-53.
-			and programmed to process downloadable executable code, said method of controlling comprising the steps of:	

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Language	and run the information of a particular set of instructions that follows said word or words just as the information of a file named FILE.EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the disk drive of said disk inputs) and run were the command "FILE"	entered from the console keyboard to the system level of the installed disk operating system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.") A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes	said apparatus to perform a particular function or functions. A command is always constituted of at least a (Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station annarants to execute	a combining operation in synchronization is called a "combining synch command." Said initial signal word or words that preceded the above program instruction set provide another example of a combining synch command in that said word or words synchronized all subscriber station computers in commencing loading and running information for a	The station receives programming from many sources. Transmissions are received from a satellite by satellite antenna, 50, low noise amplifiers, 51 and 52, and TV receivers, 53, 54, 55, and 56. Microwave transmissions are received by microwave antenna, 57, and	television video and audio receivers, 58 and 59. Conventional TV broadcast transmissions are received by antenna, 60, and TV demodulator, 61. Other electronic
Reference		Page 44 lines 14-17.	Page 26 lines 20-28.		Page 324 lines 23-33.	
Language			7		Incoming programing transmissions are received at the relevant receiver points, antennas, 50, 57, and 60, and other means, 62. They are fed along the conventional paths described above.	
Keierence					Column 10 lines 61-64.	· · · · · · · · · · · · · · · · · · ·
					receiving at	

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Agangana Tamba	Reference	Language	Reference	Language
				programming transmissions are received by other programming input means, 62. Each
				receiver/modulator/input apparatus, 53
				through 62, transfers its received
	Column 4 lines 5 6	There techniques commences	Days 12 15.00 75 75	transmissions into the station by hard-wire
	Column 4 mics 3-0.	inese reciniques employ signais embedded in programs.	rage 13 lines 23-20.	I ne present invention emptoys signais embedded in programming.
a transmitter station	Column 10 lines 15-20.	The signal processing apparatus outlined in	Page 324 lines 8-17.	The signal processing apparatus
		FIGS. 1, A, 2B, and 2C, and their variants		outlined in Figs. 2, 2A, 2B, 2C, and 2D, and
		as appropriate, can be used to automate the		their variants as appropriate, can be used to
		operations of an intermediate transmission		automate the operations of intermediate
		point whether it be a broadcast station		transmission stations that receive and
		transmitting only a single channel of		retransmit programming. The stations so
		programing or a cable system cablecasting		automated may transmit any form of
		many channels.		electronically transmitted programming,
				including television, radio, print, data, and
				combined medium programming and may
				range in scale of operation from wireless
				broadcast stations that transmit a single
				programming transmission to cable systems
				that cablecast many channels simultaneously.
a portion of said	Column 7 lines 50-54.	Processor or monitor, 12, analyzes, in a	Page 31 lines 10-14.	Controller, 12, receives the signals inputted
downloadable		pre-determined fashion, the signal words		from buffer/comparator, 8, and decryptor, 10;
executable code which		and units that it receives and determines		analyzes said signals in a predetermined
is effective at a receiver		whether they are to be passed to external		fashion; and determines whether they are to be
station to		equipment or to buffer/comparator, 14, for		transferred to external equipment or to
		further processing or both.		buffer/comparator, 14, or both.
	Column 19 lines 46-53.	When the "Wall Street Week" transmission	Page 23 line 35 to page	Subsequently, a second series of instructions
		begins at 8:30 PM on a Friday evening,	24 line 16.	is embedded and transmitted at said program
	,	several instruction signals are identified by		originating studio. Said second series is
		decoder, 203, and transferred to		detected and converted into usable digital
		microcomputer, 205. These signals instruct		signals by decoder, 203, and inputted to
		microcomputer, 205, upon command.		microcomputer, 205, in the same fashion as
				the first series. Microcomputer, 205,
				evaluates the initial signal word or words
				which instruct it to load at RAM (from the
				input buffer to which decoder, 203, inputs)
		•		and run the information of a particular set of
				instructions that follows said word or words
				just as the information of a file named
٠				FILE EXE, recorded on the contained floppy
				disk, would be loaded at KAM (from the input

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				buffer to which the disk drive of said disk inputs) and run were the command "FILE" entered from the console keyboard to the system level of the installed disk operating system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")
			Page 44 lines 14-17.	A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions. A command is always constituted of at least a
			Page 26 lines 20-28.	(Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining operation in synchronization is
	•			initial signal word or words that preceded the above program instruction set provide another example of a combining synch command in that said word or words synchronized all subscriber station computers in commencing
				loading and running information for a particular combining.)
perform one of the group consisting of:	Column 8 lines 62-65.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.	Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
			For example, page 531 lines 17-22.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal
	Column 5 lines 16-20.	[The apparatus] has a read only memory for recording permanent operating	Page 16 lines 6-10.	processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch, 259 [The apparatus] has a read only memory for recording permanent operating instructions
		instructions and other information and a		and other information and a programmable

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	•	programmable random access memory		random access memory controller ("PRAM
		controller ("PRAM controller") that		controller") that permits revision of operating
		permits revision of operating patterns and		patterns and instructions.
1 - 1 - 1 - 1	01.10	instructions.		
(a) selecting and receiving a cablecast	Column 9 lines 47-52.	The controller, 20, is programed to sequence the local oscillator 6 to select	Page 248 line 17 to	Signal processor, 200, is preprogrammed
signal based on one of a		sequence are rocar oscillator, o, to series	page 242 mile 3.	with information that identifies each cable an
orginal based oil oile of a		each desired frequency for a specific fillic		over-ine-an (netennamer, wheless)
presence and accention		and variation and any of the autom meet be		indianasion of itequency in the locality of the
cast signal, and		predecimined pattern. This pattern may be		subscriber station of Fig. 3 as well as the
		Selected in accordance with standard		standard broadcast and cablecast practices that
		oroadcast and cablecast practices known to		apply on said transmissions and frequencies
		exist on that transmission line or frequency.		In a predetermined fashion, controller, 20,
				controls oscillator, 6, to sequence local
				oscillator, 6, in the pattern: cable channel 2,
				cable channel 4, cable channel 7, cable
				channel 13, wireless channel 5, wireless
				channel 9 wireless channel 13 then to reneat
				channer 2, whereas channer 13, then to repeat
•		-		said pattern.
			;	
			Page 257 line 24 to	Said detection-complete information causes
			page 258 line 19.	controller, 20, to cause oscillator, 6, to cause
			•	the selection of the next channel in the
				predetermined television channel selection
				production to the production of the production in
				patienti, whereas chalmer 9. Automatically
				oscillator, 6, causes mixer, 3, to select the
				frequency of channel 9 and input said
				frequency of interest, at a fixed frequency, to
				decoder, 30
				Controller, 20, has capacity for
				keeping track of elapsed time, and after
				determining in a predetermined fashion that a
				particular predetermined period of time has
				elapsed from the input of wireless channel 9 to
				decoder, 30, controller, 20, causes
,				oscillator, 6, to cause the selection of the next
				channel in the predetermined television
		,		channel selection pattern: wireless channel 13.
selecting and	Column 9 lines 47-52.	The controller, 20, is programed to	Page 248 line 17 to	Signal processor, 200, is preprogrammed
receiving a broadcast		sequence the local oscillator, 6, to select	page 249 line 5.	with information that identifies each cable and
signal based on one of a		each desired frequency for a specific time		over-the-air (hereinafter, "wireless")
presence and absence of		interval in accordance with a		transmission or frequency in the locality of the
a cablecast signal;		predetermined nattern. This nattern may be		2b

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		selected in accordance with standard		standard broadcast and cablecast practices that
		broadcast and cablecast practices known		apply on said transmissions and frequencies
		to exist on that transmission line or		In a predetermined fashion, controller, 20,
		trequency.	٠	controls oscillator, 6, to sequence local
				oscillator, 6, in the pattern: cable channel 2,
				cable channel 4, cable channel 7, cable
				channel 13, wireless channel 5, wireless
				channel 9, wireless channel 13, then to repeat
				said pattern.
	•		•	
			Page 257 line 24 to	Said detection-complete information causes
			page 258 line 19.	controller, 20, to cause oscillator, 6, to cause
				the selection of the next channel in the
				predetermined television channel selection
				pattern: wireless channel 9. Automatically
				oscillator, 6, causes mixer, 3, to select the
				frequency of channel 9 and input said
			-	frequency of interest at a fixed frequency to
				decoder 20
	•			decoder, 50
	•			Controller, 20, has capacity for
				keeping track of elapsed time, and after
				determining in a predetermined fashion that a
				particular predetermined period of time has
				elapsed from the input of wireless channel 9 to
				decoder, 30, controller, 20, causes
				oscillator, 6, to cause the selection of the next
				channel in the predetermined television
		A Constitution of the Property of the Property of the Constitution		channel selection pattern: wireless channel 13.
transferring said	Column 11 lines 50-57.	if controller/computer, 73, determines	Page 328 line 22 to	For example, computer, 73, receives a given
downloadable		that programing incoming via receiver, 53,	page 329 line 1.	SPAM message that contains given "program
executable code to		should be transmitted immediately to the		unit identification code" information and the
		field distribution system, 93, via cable		added source mark information of said
		channel modulator, 87,		message identifies distribution amplifier, 63.
	,	controller/computer, 73, instructs matrix		Receiving said message causes computer, 73,
		switch, 75, to configure its switches so as to		to determine, in a predetermined fashion, that
		transfer programing transmissions inputted		said "code" information matches particular
		from TV receiver, 53, to the output that		preprogrammed schedule information of
		leads to modulator, 87.		programming that is scheduled to be
				retransmitted immediately upon receipt to
				field distribution system, 93, via cable channel
				modulator, 87. In its preprogrammed fashion,
				so determining causes computer, 73, to cause

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				matrix switch, 75, to configure its switches so	
				as to transfer the programming transmission	
				inputted (via distribution amplifier, 63) to	
				matrix switch, 75, from TV receiver, 53, to	
				that output of matrix switch, 75, that outputs to modulator 87	
a transmitter;	Column 10 lines 43-47.	and/or to equipment that outputs them	Page 325 lines 1-4.	apparatus that outputs said transmissions	T^-
		over various channels to the cable system's	•	over various channels to the cable system's	
		field distribution system, 93, which		field distribution system, 93, which apparatus	
		equipment includes here cable channel		includes cable channel modulators, 83, 87,	
		modulators, 83, 87, and 91, and channel		and 91, and channel combining and	
	: 0	comouning and multiplexing system, 92.		multiplexing system, 92.	Т
receiving said at least	Column 10 lines 61-64.	Incoming programing transmissions are	Page 324 lines 23-33.	The station receives programming from many	_
one		received at the relevant receiver points,		sources. Transmissions are received from a	_
,		4 1		satellite by satellite antenna, 50, low noise	_
		62. I ney are red along the conventional		amplitiers, 51 and 52, and 1 V receivers, 53,	
		pauls described above.	-	54, 55, and 56. Microwave transmissions are received by microwave antenna 57 and	
				television video and audio receivers 58 and	
	~			59. Conventional TV broadcast transmissions	
				are received by antenna, 60, and TV	
•			•	demodulator, 61. Other electronic	
				programming transmissions are received by	
,				other programming input means, 62. Each	
				receiver/modulator/input apparatus, 53	
				through 62, transfers its received	
	Column 4 lines 5-6.	These techniques employ signals	Page 13 lines 25-26.	transmissions into the station by hard-wire The present invention employs signals	
		embedded in programs.		embedded in programming.	
	Column 10 lines 45-63				
	Column 19 lines 14-15				
	Column 19 lines 20-23				7
control signal at said transmitter station	Column 4 lines 14-17.	The embedded signals may run and repeat	Page 14 lines 3-5.	In programming transmissions, given signals	
wherein said at least		they may run only occasionally or only	,	continuously or at regular intervals. Or they	
one control signal operates to		once.		may run only occasionally or only once.	
	Column 8 lines 58-60.	Control signals can be passed to the apparatus by means of the programing	Page 290 lines 26-31.	causes the oscillator, 6, then to cause switch. 1. and mixer. 3. to select information	
		transmissions input at switch, 1, and mixer,		of a particular master cable control channel	
	_	-		(mat may or may not be cable channel 13)	_

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				from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	
			Page 291 lines 21-24.	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted),	
				to detect the information of said message,	
			Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed annarants at subscriber stations.	
	Column 17 lines 39- 44.	Signal processor apparatus have the ability to identify instruction and information signals in one or more inputted television and radio programing	Page 15 lines 16-23.	The frequencies may convey television, radio, or other programming transmissionsThe scanners/switches, working in parallel or series or combinations transfer the	
		transmissions, identify and discriminate among one or more pieces of external equipment to which such signals are addressed, and transfer such signals to such equipment as directed		transmissions to receiver/decoder/detectors that identify signals encoded in programming transmissions and convert the encoded signals to digital information;	
	·		Page 34 lines 24-26.	identifies the particular apparatus to which said signals are addressed, and outputs said signals to said apparatus	
			Page 44 lines 14-15.	A command is an instance of signal information that is addressed to particular subscriber station apparatus and that	
			Page 95 lines 18-21.	Receiving the header and execution segment of said first message causes controller, 39, to determine that said message is addressed to URS microcomputers, 205, and to transfer said message to microcomputer, 205.	
	Column 8 lines 58-60				
	Column 8 lines 62-65.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over	Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originales said message controls executed.	
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Support to instant specification.	Language	addressed apparatus at subscriber stations.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal	processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch, 259	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 8, wireless channel 13, then to repeat said pattern.	For example, computer, 73, receives a given SPAM message that contains given "program unit identification code" information and the added source mark information of said message identifies distribution amplifier, 63. Receiving said message causes computer, 73, to determine, in a predetermined fashion, that said "code" information matches particular preprogrammed schedule information of programming that is scheduled to be retransmitted immediately upon receipt to field distribution system, 93, via cable channel modulator, 87. In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 63) to matrix switch, 75, from TV receiver, 53, to that outputs to modulator, 87.		Fig. 6 shows particular signal processor system monitoring apparatus associated with the intermediate station of Fig. 6. In field distribution system, 93, amplifier, SWIT 280, Appendix A, Page 100 of 183
Sup	Reference		For example, page 531 lines 17-22.		Page 248 line 35 to page 249 line 5.	Page 328 line 22 to page 329 line 1.		Page 337 lines 1-8.
Support to parent application filed November 3, 1981.	Language	control information lines.			The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.		Beyond channel combining system and multiplexer, 92, amplifier, 94, transmits programing to signal processor, 71, and signal processor, 96,
Support to parent a	Reference				Column 8 lines 27-29.	Column 11 lines 50-57.	Column 19 line 64- Column 20 line 1	Column 12 lines 45-47.
Claim Language	Ciaiiii Laiiguage				execute said downloadable executable code; and	transferring said at least one control signal to said transmitter,		and transmitting an information transmission comprising said

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application filed November 3, 1981.	Language
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Claim Language	Support to parent	Support to parent application filed November 3, 1981.	Supp	Support to instant specification.	
	Reference	Language	Keierence	Language	
downloadable executable code and said at least one control signal.				94, inputs programming transmissions to signal processor system, 71, (where said transmissions are inputted to one alternate contact of the switch, 1, of the signal processor of said system, 71), and amplifier, 95, inputs programming transmissions to	
	Column 5 lines 16-20.	[The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that	Page 16 lines 6-10.	signal processor, 96, [The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating	
	Column 8 lines 58-60.	permits revision of operating patterns and instructions. Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.	Page 290 lines 26-31.	patterns and instructions. causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13)	
				from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	
			Page 291 lines 21-24.	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	
			Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	
	Column 9 lines 47-52.	Ine controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or	Fage 248 line 1/ to page 249 line 5.	signal processor, 200, is preprogrammed with information that identifies each cable and over-the-air (hereinafter, "wireless") transmission or frequency in the locality of the subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that apply on said transmissions and frequencies In a predetermined fashion, controller, 20,	
_		frequency.		controls oscillator, 6, to sequence local	

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	Support to parent appli	application filed November 3, 1981.	Supp	Support to instant specification.
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				oscillator, 6, in the pattern: cable channel 2,
				cable channel 4, cable channel 7, cable
				channel 9 wireless channel 13 than to repeat
				said pattern.
			Dece 257 1500 24 to	
	-		Fage 237 line 24 to	Said detection-complete information causes
			page 230 mme 19.	the selection of the next channel in the
				predetermined television channel selection
				pattern: wireless channel 9. Automatically
		-		oscillator, 6, causes mixer, 3, to select the
				frequency of channel 9 and input said
				frequency of interest, at a fixed frequency, to
				decoder, 30
				Controller, 20, has capacity for
				keeping track of elapsed time, and after
	•			determining in a predetermined fashion that a
				particular predetermined period of time has
				elapsed from the input of wireless channel 9 to
				decoder, 30, controller, 20, causes
				oscillator, 6, to cause the selection of the next
				channel in the predetermined television
				channel selection pattern: wireless channel 13.
	Column 7 lines 50-54.	Processor or monitor, 12, analyzes, in a	Page 31 lines 10-14.	Controller, 12, receives the signals inputted
	-	pre-determined fashion, the signal words		from buffer/comparator 8, and decryptor 10.
		and units that it receives and determines		analyzes said sionals in a predetermined
	÷	whether they are to be nassed to external		fashion: and determines whether they are to be
		equipment or to buffer/comparator 14, for		transferred to external equipment or to
		further processing or both.		buffer/comparator, 14, or both.
	Column 8 lines 62-65.	The processor unit, 12, has the capacity to	Page 59 lines 29-31.	A SPAM message is the modality whereby
		identify instruction signals for controller,		the original transmission station that
		20, and pass them to controller, 20, over	•	originates said message controls specific
		control information lines.		addressed apparatus at subscriber stations.
-			For example, page 531	Said contained messages that are addressed to
			lines 1 /-22.	apparatus such as decoder, 30, PKAM
				controller, 20, and switch controller, 20A, that exist within the conjument case of a cional
				processor 200 are inputted to said apparatus
				from controller 12 via controller 20 rather
				than via matrix switch, 259

port to instant specification.	Language
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instruction signals embedded in the "Wall Street Week" programming transmission.	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200, All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205.	Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, The information so inputted is the aforementioned determine-whether- to-select instructions that contain said particular specific-WSW information and said enable-WSW-on-CC13	Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said station to view (or record) said "Wall Street Week" program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said
Page 21 lines 23-24.	Page 435 lines 16-18. Page 267 lines 20-28 from example #5.		Page 436 line 9 to page 437 line 3.	
instruction signals embedded in the "Wall Street Week" programing transmission.	processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.			
Column 19 lines 43-44.	Column 19 lines 17-23.			
15. The method of claim 14, wherein one of said downloadable executable code and	a portion of identification data with respect to said downloadable executable code are			

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Claim I anguage	Ciaiiii Laiiguage

determines a match with said second instance. Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW on-CC13-at-particular- 8:30 information to the controller, 20.	to receive the transmission of cable channel 13;	14-15.	25-26. The present invention employs signals embedded in programming.	
		Page 439 lines 14-15.	Page 13 lines 25-26.	Page 14 lines 11-14.
			These techniques employ signals embedded in programs.	In television and radio they may appear in a portion of the audio range that is not normally rendered in a form audible to the human ear.
			Column 4 lines 5-6.	Column 4 lines 22-25.
			embedded in a television signal.	

and to tune monitor, 202M, in a predetermined fashion.	In so doing, controller, 20, causes monitor, 202M, to receive the decrypted video and audio information of the "Wall Street Week" program, to display the video image of said	information, and to emit sound in accordance with said audio	Subsequently, a second series of instructions is embedded and transmitted at said program	originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to	microcomputer, 205, in the same fashion as the first series. Microcomputer, 205,	evaluates the initial signal word or words which instruct it to load at RAM (from the
Page 445 line 35 to page 446 line 1.	Page 446 lines 17-21.		Page 23 line 35 to page 24 line 16.			,
and tuner, 215 , to tune appropriately to "Wall Street Week."			When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening,	several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct	microcomputer, 205, upon command.	-
The method of Column 19 lines 28-29. 4, wherein a on program is ed at a receiver			Column 19 lines 46-53.			
16. The method of claim 14, wherein a television program is displayed at a receiver	station of said plurality of receiver stations and said downloadable executable code		programs one of said receiver station	processor and a computer to one of		

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 pplication filed November 3, 1981.	Language	
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Claim I anguage	Sanguar Tunio	

input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions that follows said word or words just as the information of a file named FILE.EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the disk drive of said disk inputs) and run were the command "FILE" entered from the console keyboard to the system level of the installed disk operating system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")	A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions. A command is always constituted of at least a	(Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining operation in synchronization is called a "combining synch command." Said initial signal word or words that preceded the above program instruction set provide another example of a combining synch command in that said word or words synchronized all subscriber station computers in commencing loading and running information for a particular combinine)		Microcomputer, 205, evaluates the initial signal word or words which instruct it to	the program instruction set in the first message of the "Wall Street Week" example SWIT 280. Appendix A. Page 105 of 183
	Page 44 lines 14-17.	Page 26 lines 20-28.		Page 24 lines 5-16.	Page 451 lines 7-11.
				These signals instruct microcomputer, 205,	to generate several graphic video overlays,
			Column 18 lines 14-26 Column 19 line 67- Column 20 line 2 Column 20 lines 28-43	Column 19 lines 48-53.	
				output video in the context of a television program,	

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			-	instructs microcomputer, 205, to generate not one but a plurality overlays. The combining of Fig. 1C is merely the first.	
		which microcomputer, 205, has the means to generate and transmit and TV set, 202, has the means to receive and display,	Page 19 line 29 to page 20 line 20.	Microcomputer, 205, is a conventional microcomputer system for generating computer graphic information; for receiving a	
				said graphic information onto the video information of said transmission by graphic overlay techniques well known in the arr and	
				for outputting the resulting combined information to a TV monitor, 202M, in a	
				composite video transmission. TV monitor, 202M, has capacity for receiving	
				composite video and audio fransmissions and for presenting a conventional television video image and audio cound	
			:		
		transmit these overlays to 1 v set, 202	rage 26 lines 4-8.	said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic	
				information in its graphics card onto the	
				received composite video information and transmit the combined information to TV	-
				monitor, 202M.	\neg
to process a subscriber reaction to said	Column 19 lines 63-64.	This signal is identified by decoder, 203, and transferred via processor, 204, to	Page 26 lines 1-2.	Said signal is identified by decoder, 203; transferred to microcomputer, 205; and	
נכוכ ווווי שווי שווי שווי		merocomparer, 200.	Page 37 line 26 to page	In each decoder, the controller, 39, 44, or 47,	
			38 line 8.	receives detected digital information from the	
				and 46. Upon receiving any given instance of	ι.
				signal information, controller, 39, 44, or 47, is	
	-			preprogrammed to identify in a	
				predetermined fashion or fashions subscriber station apparatus to which said signal	
				information should be transferred; and to	
			- :	transfer said signals to said apparatus.	
	Column 19 line 53-56.	Subsequently in the program, the host says, "Here is what the Dow Jones Industrials	Page 25 lines 26-33.	During this time the program may show the so-called "talking head" of the host as he	
		did is the past week," and a studio		describes the behavior of the stock market	
		generated graphic is pictured.		over the course of the week. Then the host	
] :

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	_	_		
				says, "Now as we turn to the graphs, here is
				what the Dow Jones Industrials did in the
				week just past," and a studio generated
				graphic is transmitted. Fig. 1B shows the
				image of said graphic as it appears on the video screen of TV monitor, 202M
	Column 20 lines 20-28			
J.: 450 000	Column 20 lines 4/-50			
to select information	Column 19 lines 64-66.	I his signal instructs microcomputer, 205,	Page 26 lines 1-8.	Said signal is identified by decoder, 203;
supplemening said		to transmit the first overlay to 1 V set,		transferred to microcomputer, 205; and
terevision program.		202,		executed by microcomputer, 205, at the
				system level as the statement, "GRAPHICS
				ON". Said signal instructs microcomputer,
				205, at the PC-MicroKey 1300 to overlay the
				graphic information in its graphics card onto
				the received composite video information and
		-		transmit the combined information to TV
				manishing the companied injoinfallon to 1 V
	Column 19 lines 48-53.	These signals instruct microcommiter 205	Page 24 lines 5-16	Microcommiter 205 evaluates the initial
	-			signal word or words which instruct it to
-		to generate several graphic video	Page 451 lines 7-11.	the program instruction set in the first
		overlays,		message of the "Wall Street Week" example
				instructs microcomputer, 205, to generate not
				one but a plurality overlays. The combining
	-			of Fig. 1C is merely the first.
		which microcommuter 205 has the	Page 10 line 20 to page	Microcommuter 205 is a sectionalist
		means to generate and transmit and TV set.	20 line 20.	microcomputer system for generating
		202, has the means to receive and display,		computer graphic information: for receiving a
		and to		composite video transmission; for combining
				said graphic information onto the video
	-			information of said transmission by graphic
			•	overlay techniques, well known in the art; and
				for outputting the resulting combined
				information to a TV monitor, 202M, in a
	-			composite video transmission TV
				monitor, 202M, has capacity for receiving
				for presenting a contentional following and
				ingage and andio cound
				inage and audio sound.

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Language		Said signal instructs microcomputer, 205, at	the PC-MicroKey 1300 to overlay the graphic	information in its graphics card onto the	received composite video information and	transmit the combined information to TV	monitor, 202M.
Reference		Page 26 lines 4-8.					
Language		transmit these overlays to TV set,	202,			-	
Reference							
0							
	Į						

17. The method of claim 14, wherein said	Column 8 lines 58-60.	Control signals can be passed to the apparatus by means of the programing	Page 290 lines 26-31.	causes the oscillator, 6, then to cause switch 1 and mixer. 3 to select information
at least one control signal incorporates		transmissions input at switch, 1, and mixer, 2.		of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;
			Page 291 lines 21-24.	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,
			Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed annarants at subscriber etations
	Column 8 lines 62-65.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.	Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
			For example, page 531 lines 17-22.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch, 259
said portion of said downloadable executable code.	Column 5 lines 16-20.	[The apparatus] has a read only memory for recording permanent operating instructions and other information and a	Page 16 lines 6-10.	[The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable

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Claim Language	99

·	:	programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.		random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.	
	Column 9 lines 47-52.	The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a	Page 248 line 17 to page 249 line 5.	Signal processor, 200, is preprogrammed with information that identifies each cable and over-the-air (hereinafter, "wireless")	
		predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to		subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that	
		exist on that transmission line or frequency.	÷	epply on sard transmissions and frequencies In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator 6 in the nattern cable channel 2	
				cable channel 4, cable channel 7, cable channel 13, wireless channel 13, wireless channel 13, then to repeat	
				said pattern.	
			rage 257 line 24 to page 258 line 19.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the	
				predetermined television channel selection pattern: wireless channel 9. Automatically	
				oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said	
				frequency of interest, at a fixed frequency, to decoder 30	
-				Controller, 20, has capacity for	
				Keeping track of elapsed time, and after determining in a predetermined fashion that a	
				particular predetermined period of time has elabsed from the input of wireless channel 9 to	
				decoder, 30, controller, 20, causes	
				oscillator, 6, to cause the selection of the next channel in the predetermined television	
				channel selection pattern: wireless channel 13.	

A SPAM message is the modality whereby the	original transmission station that originates	said message controls specific addressed	SWIT 280, Appendix A, Page 109 of 183
Page 59 lines 29-33.			
At this point, an instruction signal is	generated in the television studio	originating the programing and is	
Column 19 lines 60-63.			
18. A method of	controlling a network,	said network having	

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7	Support to parent	Support to parent application filed November 3, 1981.	Supp	Support to instant specification.
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		transmitted in the programing transmission.		apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.
			Page 25 line 34 to page 26 line 1.	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted.
			Page 90 lines 4-7. Applicants teach this as the composition of the instruction signal of page 25 line 34. See page 26 lines 1-4 and 20-28, page 89 lines 3-6, and page 90 lines 4-	The second message is of the information associated with the second combining synch command. Said second command has a "00" header, an execution segment, and a metermonitor
	Column 15 lines 57-62.	The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable systems, and possibly times of transmission	Page 315 lines 20-24.	Each one of said decoders is preprogrammed to detect and transfer to said onboard controller, 14, via said bus means, the meter-monitor information of every unencrypted SPAM message in the transmission to which its associated apparatus is tuned.
			Page 44 lines 26-32.	Commands often contain meter-monitor segments. Said segments contain meter information and/or monitor information, and the information of said segments causes subscriber station signal processor systems to assemble, record, and transmit meter records
				to remote billing stations and monitor records to remote ratings stations in fashions that are described more fully below.
	·		Page 49 line 26 to Page 50 line 4.	Meter-monitor segments contain meter information and/or monitor information. Examples of categories of such information
				unique codes for programming; and

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				unique codes that identify the sources and
				suppliers of computer data.
				origins of transmissions (eg., network
				source stations,
				broadcast stations, cable head end stations);
		٠		dates and times
			:- 0	
			rage 28 lines 20-27.	monitor information that identifies what
	: 0	, and the same of		programming is available,
a remote intermediate	Column 10 lines 15-20.	The signal processing apparatus outlined in	Page 324 lines 8-17.	The signal processing apparatus outlined in
uansinutei station and		FIGS. 1, A, 2b, and 2C, and their variants		Figs. 2, 2A, 2B, 2C, and 2D, and their variants
		as appropriate, can be used to automate the		as appropriate, can be used to automate the
		operations of an intermediate transmission	•	operations of intermediate transmission
		point whether it be a broadcast station		stations that receive and retransmit
		transmitting only a single channel of		programming. The stations so automated may
		programing or a cable system cablecasting		transmit any form of electronically transmitted
		many channels.		programming, including television, radio.
				print, data, and combined medium
				programming and may range in scale of
				operation from wireless broadcast stations that
				transmit a single programming transmission to
				cable systems that cablecast many channels
				simultaneously.
a receiver station,	Column 17 lines 47-53.	FIG 6 illustrates one possible	Page 390 lines 30-35.	Fig. 7 exemplifies one embodiment of an
	•	configuration of equipment in a home or		ultimate receiver station; is a subscriber
		office or other television and/or radio		station in the field distribution system, 93, of
		receiving site. Consideration of FIGS.		the intermediate transmission station of Fig. 6;
		6F and 6G is facilitated by consideration,		and may be a home, an office, a theater, a
		first, of individual examples of the types		hotel, or any other station where programming
		of co-ordinated presentations that the		such as television or radio is displayed to
		signal apparatus and methods described here can nermit		persons.
			Page 396 lines 8-10.	Features, benefits, and modes of operation of
				the station of Fig. 7 are demonstrated in the
				following individual examples.
caid remote	Column 3 lines 9 12	The state of the s	Dec. 16 1: - 2	

The signal processing apparatus outlined in | Page 324 lines 8-17.

whole signal units, or groups of partial or

whole signal units or combinations.)

one of a broadcast and a | Column 10 lines 15-20.

predetermined data bits to identify the beginnings and ends of words. Signal words may contain parts of signal units,

Such strings may or may not have

Column 3 lines 8-12.

said remote intermediate transmitter station including units, or groups of partial or whole signal units or combinations.)

Such strings may or may not have predetermined data bits to identify the beginnings and ends of words. Signal words may contain parts of signal units, whole signal

Page 15 lines 2-6.

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upplication filed November 3, 1981.	Language
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cablecast transmitter,		FIGS. 1, A, 2B, and 2C, and their variants as appropriate, can be used to automate the operations of an intermediate transmission point whether it be a broadcast station transmitting only a single channel of programing or a cable system cablecasting many channels.		outlined in Figs. 2, 2A, 2B, 2C, and 2D, and their variants as appropriate, can be used to automate the operations of intermediate transmission stations that receive and retransmit programming. The stations so automated may transmit any form of electronically transmitted programming, including television, radio, print, data, and combined medium programming and may range in scale of operation from wireless broadcast stations that transmit a single programming transmission to cable systems that cablecast many channels simultaneously
a plurality of selective transfer devices each operatively connected to	Column 10 lines 41-43.	by means of conventional switches (here matrix switch, 75), to one or more video recorder/players, 76 and 78,	Page 324 line 34-35.	a conventional matrix switch, 75, well known in the art, one or more recorder/players, 76 and 78,
said one of a broadcast and a cablecast transmitter,	Column 10 lines 40-47.	All of these received transmissions feed into the facility by hard-wire and connect, by means of conventional switches (here matrix switch, 75), to one or more video recorder/players, 76 and 78, and/or to equipment that outputs them over various channels to the cable system's field distribution system, 93, which equipment includes here cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system, 92.	Page 324 line 31 to page 325 line 4.	Each receiver/modulator/input apparatus, 53 through 62, transfers its received transmissions into the station by hard-wire, a conventional matrix switch, 75, well known in the art, one or more recorder/players, 76 and 78, apparatus that outputs said transmissions over various channels to the cable system's field distribution system, 93, which apparatus includes cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system, 92.
a receiver for receiving at least one instruct signal from an origination transmitter,	Column 10 lines 30-39.	The facility receives programing from many sources. Transmissions may be received from satellites by satellite antenna, 50, low noise amplifiers, 51 and 52, and TV receivers, 53, 54, 55, and 56. Microwave transmissions can be received by microwave antenna, 57, and television video and audio receivers, 58 and 59. Conventional TV broadcast transmissions can be received by antenna, 60, and TV demodulator, 61. Other electronic programming input means, 62, can receive	Page 324 lines 23-31.	The station receives programming from many sources. Transmissions are received from a satellite by satellite antenna, 50, low noise amplifiers, 51 and 52, and TV receivers, 53, 54, 55, and 56. Microwave transmissions are received by microwave antenna, 57, and television video and audio receivers, 58 and 59. Conventional TV broadcast transmissions are received by antenna, 60, and TV demodulator, 61. Other electronic programming transmissions are received by other electronic
	Column 19 lines 60-63.	programming transmissions. At this point, an instruction signal is	Page 59 lines 29-33.	A SPAM message is the modality whereby the SWIT 280, Appendix A, Page 112 of 183

_	_	_	
to inctant ensoification	Tapport to instant specification.	Language	original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially
Cum	Reference		
application filed November 3 1981	Language		generated in the television studio originating the programing and is transmitted in the programing transmission.
Support to parent	Reference		
	Claim Language		

_							
Language	original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted.	The second message is of the information associated with the second combining synch command. Said second command has a "00" header, an execution segment, and a metermonitor	The present invention employs signals embedded in programming.	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed
		Page 25 line 34 to page 26 line 1.	Page 90 lines 4-7. Applicants teach this as the composition of the instruction signal of page 25 line 34. See page 26 lines 1-4 and 20-28, page 89 lines 3-6, and page 90 lines 4-11.	Page 13 lines 25-26.	Page 290 lines 26-31.	Page 291 lines 21-24.	Page 59 lines 29-31.
99	generated in the television studio originating the programing and is transmitted in the programing transmission.			These techniques employ signals embedded in programs.	Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.		
				Column 4 lines 5-6.	Column 8 lines 58-60.		

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Claim Language	Support to parent	Support to parent application filed November 3, 1981.		Support to instant specification.
5	Keterence	Language	Reference	Language
	Column 6 lines 48-50.	This base band signal is then transmitted through separate paths to three separate detector devices.	Page 34 line 35 to page 35 line 1.	apparatus at subscriber stations. This base band signal is then transferred through separate paths to three separate detector devices.
a control signal detector,	Column 11 lines 3-5.	Signal processor, 71, has means, described above, to identify and separate the instruction and information signals from their associated programing and	Page 325 line 34 to page 326 line 7.	At signal processor system, 71, which is a system as shown in Fig. 2D, the outputted transmission of each distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70, is inputted into a dedicated decoder (such as decoders, 27, 28, and 29 in Fig. 2D) that processes continuously the inputted transmission of said distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70; selects SPAM messages in said transmission that are addresses to ITS apparatus of said intermediate transmission station;
			Page 59 lines 29-33	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.
and one of a controller and a computer capable of controlling	Column 11 lines 15-17.	Cable program controller and computer, 73, is the central automatic control unit for the transmission facility.	Page 326 lines 19-20.	Cable program controller and computer, 73, is the central automatic control unit for the transmission station.
at least one of said plurality of selective transfer devices, said remote intermediate transmitter station being adapted to	Column 11 lines 44-46.	Controller/computer, 73, has means for communicating control information with matrix switch, 75, and video recorder/players, 76 and 78.	Page 328 lines 14-16.	Computer, 73, has means for communicating control information with matrix switch, 75, and video recorders, 76 and 78,
detect at least one control signal,	Column 11 lines 3-5.	Signal processor, 71, has means, described above, to identify and separate the instruction and information signals from their associated programing and	Page 325 line 34 to page 326 line 7.	At signal processor system, 71, which is a system as shown in Fig. 2D, the outputted transmission of each distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70, is inputted into a dedicated decoder (such as decoders, 27, 28, and 29 in Fig. 2D) that processes continuously the inputted transmission of said distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70; selects SPAM messages in said SWIT 280, Appendix A, Page 114 of 183

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Claim Language	mond or reading	application filed interinger 3, 1201.	dne	OIL IO IIISIAIII SPECIIICAIIOII.
9nn9	Reference	Language	Reference	Language
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Claim Language	במקלים ווים המוכזוו מלוחוו	ation inch		Support to instant specification.	╗
	Reference	Language	Reference	Language	
				transmission that are addresses to ITS	Γ_
				apparatus of said intermediate transmission	
				station;	
			Page 59 lines 29-33	A SPAM message is the modality whereby the	
				original transmission station that originates	
				said message controls specific addressed	_
				apparatus at subscriber stations. The	
				information of any given SPAM transmission	
				consists of a series or stream of sequentially	
				transmitted SPAM messages.	
	Column 6 lines 48-50.	This base band signal is then transmitted	Page 34 line 35 to page	This base band signal is then transferred	
		through separate paths to three separate	35 line 1.	through separate paths to three separate	
		detector devices.	;	detector devices.	
	Column 8 lines 58-59.	Control signals can be passed to the	Page 59 lines 29-33.	A SPAM message is the modality whereby the	
		apparatus by means of the programing		original transmission station that originates	_
		transmissions		said message controls specific addressed	
				apparatus at subscriber stations. The	_
				information of any given SPAM transmission	
				consists of a series or stream of sequentially	
				transmitted SPAM messages.	_
	Column 11 lines 38-39.	By comparing identification signals on	Page 327 line 35 to	Computer, 73, monitors incoming programming	_
,		the incoming programing	page 328 line 13.	by means of the aforementioned dedicated	
,				decoders of signal processor system, 71. By	_
				means of the SPAM message information, with	_
		-		source mark information, received from code	_
				reader, 72, computer, 73, determines what	
		-		specific program unit has been received by each	_
				receiver, 53 through 62, and is passing in line, via	
				each distribution amplifier, 63 through 70, to	
				matrix switch, 75.	
				By comparing selected meter-monitor	
				information of said message information	
				with information of the programming	_
				schedule received earlier from input, 74,	
				and/or network, 98, computer, 73, can	
				determine, in a predetermined fashion, when	
				and on what channel or channels the station of	
				Fig. 6 should transmit the programming of	_
	•			each received program unit.	
				SPAM cionals are nenerated at ariainal	
				St Airt signals are generated at original	\neg

Support to instant specification.	Language	transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions	monitor information that identifies what programming is available, Meter-monitor segments contain meter information and/or monitor information.	For example, computer, 73, receives a given SPAM message that contains given "program unit identification code" information and the added source mark information of said message identifies distribution amplifier, 63. Receiving said message causes computer, 73, to determine, in a predetermined fashion, that said "code" information matches particular preprogrammed schedule information of programming that is scheduled to be retransmitted immediately upon receipt to field distribution system, 93, via cable channel modulator, 87. In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 63) to matrix switch, 75, from TV receiver, 53, to	that output of matrix switch, 75, that outputs to modulator, 87. The present invention employs signals embedded in programming.	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;
S	Reference	Page 84 lines 26-28.	Page 28 lines 26-27. Page 49 lines 26-27.	Page 328 line 22 to page 329 line 1.	Page 13 lines 25-26.	Page 290 lines 26-31.
application filed November 3, 1981.	Language			if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.	These techniques employ signals embedded in programs.	Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.
Support to parent appl	Reference			Column 11 lines 50-57.	Column 4 lines 5-6.	Column 8 lines 58-60.
-	Ciaim Language			to control communication of said at least one instruct signal	·	

Support to instant specification. Language	transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed annaratis at subscriber stations.	Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system
Supr Reference		Page 59 lines 29-31.	Page 327 line 35 to page 328 line 13.
application filed November 3, 1981. Language			By comparing identification signals on the incoming programing with the programing schedule received earlier from
Support to parent appli			Column 11 lines 38-46.
Claim Language			in response to said at least one control signal, and

dedicated decoders of signal processor system,

programing schedule received earlier from

local input, 74, and/or from a remote site

via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should

71. By means of the SPAM message

determines what specific program unit has been received by each receiver, 53 through 62,

and is passing in line, via each distribution

transmit the programing.

Controller/computer, 73, has means for

information, with source mark information, received from code reader, 72, computer, 73,

			· -		
amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when	Fig. 6 should transmit the programming of each received program unit.	SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming	transmissions monitor information that identifies what programming is available,	Meter-monitor segments contain meter information and/or monitor information.	Computer, 73, has means for communicating
·		Page 84 lines 26-28.	Page 28 lines 26-27.	Page 49 lines 26-27.	Page 328 lines 14-16.
communicating control information with matrix switch, 75, and video recorder/players, 76 and 78.					_
	• .				

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oort to instant specification.	Language
Supp	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim I anouage	29m9

	Τ-	1		_		_				_													-		1														_	
Support to instant specification.	Language		control information with matrix switch, 75, and video recorders, 76 and 78	For example computer 73 receives a given	SPAM message that contains given "program	unit identification code" information and the	added source mark information of said	message identifies distribution amplifier, 63.	Receiving said message causes computer, 73,	to determine, in a predetermined fashion, that	said "code" information matches particular	preprogrammed schedule information of	programming that is scheduled to be	retransmitted immediately upon receipt to	field distribution system, 93, via cable channel	modulator, 87. In its preprogrammed fashion,	so determining causes computer, 73, to cause	matrix switch, 75, to configure its switches so	as to transfer the programming transmission	inputted (via distribution amplifier, 63) to	matrix switch, 75, from TV receiver, 53, to	that output of matrix switch, 75, that outputs	to modulator, 87.	I he present invention employs signals	embedded in programming.	causes the oscillator, 6, then to cause	switch, I, and mixer, 3, to select information	of a particular master cable control channel	from the multi shound och content 13)	transmission inputted to signal processor 200	and to input said selected to TV signal	decoder, 30;		in the Tashions described above, so	cional processor 200 at 400,452 20 (15	signal processor, 200, at decoder, 30, (to	which said master control channel is inputted),	to detect the information of said message,	A SPAM message is the modality whereby the	original transmission station that originates
Sup	Reference			Page 328 line 22 to	page 329 line 1.	•		-															70.00	rage 13 lines 23-20.		Page 290 lines 26-31.							Dags 201 lines 21 24	rage 291 lines 21-24.					Page 59 lines 29-31.	
Support to parent application filed November 3, 1981.	Language			if controller/computer, 73, determines	that programing incoming via receiver, 53,	should be transmitted immediately to the	field distribution system, 93, via cable	channel modulator, 87,	controller/computer, 73, instructs matrix	switch, 75, to configure its switches so as to	transfer programing transmissions inputted	from TV receiver, 53, to the output that	leads to modulator, 87.										The state of the s	mese techniques employ signals	cinocated in programs.	Control signals can be passed to the	apparatus by means of the programing	transmissions input at switch, I, and mixer,	i											
Support to parent	Reference			Column 11 lines 50-57.	-			-						,						•			Column 1 lines 5 6	Column 4 mics 3-0.	07-03	Column & lines 38-60.						-					·			
Claim Language	Ciaiiii Laiiguage			to deliver at said one of	a broadcast and a	cablecast transmitter	said at least one instruct	signal, said method	comprising the steps of:																														•	

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Claim Language Reference Language Reference Language Reference Language Language Language Language Language Language Language Language Column 8 lines 58-65 Column 11 lines 38-57 Column 17 lines 39-44 receiving said at least Column 19 lines 60-62. At this point, an instruction signal to be transmitted by said remaining the programming Remote intermediate transmitter station and ransmitter station and ransmitter station and ransmitter station and ransmitter station and reference Language Reference Language Reference Language Language Reference Language												
Support to parent application filed November 3, 1981. Reference Language Column 8 lines 58-65 Column 11 lines 38-57 Column 17 lines 39-44 St Column 19 lines 60-62. At this point, an instruction signal is generated in the television studio originating the programing	port to instant specification.	Language	apparatus at subscriber stations.				A SPAM message is the modality whereby the	original transmission station that originates	said message controls specific addressed	apparatus at subscriber stations. The	Information of any given SPAM transmission	consists of a series or stream of sequentially
Column St Column e	Supp						Page 59 lines 29-33.)				
Column St Column e	application filed November 3, 1981.	Language					At this point, an instruction signal is	generated in the television studio	originating the programing			
Claim Language receiving said at least one instruct signal to be transmitted by said remote intermediate transmitter station and	Support to parent	Reference		Column 8 lines 58-65	Column 11 lines 38-57	Column 17 lines 39-44	Column 19 lines 60-62.					
	Claim Language	29m9					receiving said at least	one instruct signal to be	transmitted by said	remote intermediate	transmitter station and	

At this point, an instruction signal is generated

Page 25 lines 34-35.

transmitted SPAM messages.

at said program originating studio, ...

command. Said second command has a "00"

associated with the second combining synch The second message is of the information

Page 90 lines 4-7.
Applicants teach this as the composition of the

command has a "U" header, an execution segment, and a metermonitor segment of five fields and addresses URS microcomputers, 205.	an instruction signal is embedded in the programming transmission, and transmitted.	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message, SWIT 280, Appendix A, Page 119 of 183
instruction signal of page 25 line 34. See page 26 lines 1-4 and 20-28, page 89 lines 3-6, and page 90 lines 4-11.	Page 25 line 34 to page 26 line 1.	Page 290 lines 26-31.	Page 291 lines 21-24.
	and [the instruction signal] is transmitted in the programing transmission.	Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.	
	Column 19 lines 62-63	Column 8 lines 58-60.	
· .	delivering said at least one instruct signal to said origination transmitter,	said at least one instruct signal being effective at said receiver station to	

ort to instant specification.	Language
Suppo	Reference
application filed November 3, 1981.	
Support to parent ap	Reference
Claim I minl	Ciaiiii Laiiguage

Claim Language	מולקם ווויסופל הו וויסלקהה	cation inco		Support to mistain specification.	\top
	Kererence	Language	Kelerence	Language	\neg
					ſ
			Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed	
	Column 8 lines 62-65.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, control information lines.	Page 59 lines 29-31.	apparatus at subscriber stations. A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	
			For example, page 531 lines 17-22.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch, 259	
group consisting of:	Column 9 lines 47-52.	In the apparatus I has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions. The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.	Page 248 line 17 to page 249 line 5.	I ne apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions. Signal processor, 200, is preprogrammed with information that identifies each cable and over-the-air (hereinafter, "wireless") transmission or frequency in the locality of the subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that apply on said transmissions and frequencies In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 13, wireless channel 5, wireless channel 13, then to repeat said pattern.	
			Page 257 line 24 to page 258 line 19.		
				CWIT 280 Annoudix A Dago 120 of 183	

,	Support to parent appli	application filed November 3, 1981	Sum	Support to instant specification
Claim Language	Reference	Language	Reference	Language
				predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to decoder, 30 Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.
(a) selecting and receiving a cablecast signal	Column 8 lines 27-29. Column 9 lines 47-52.	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3. The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.	Page 248 line 35 to page 249 line 5. Page 248 line 17 to page 249 line 5.	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 13, then to repeat said pattern. Signal processor, 200, is preprogrammed with information that identifies each cable and over-the-air (hereinafter, "wireless") transmission or frequency in the locality of the subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that apply on said transmissions and frequencies In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 13, wireless channel 5, wireless channel 13, then to repeat
			Page 257 line 24 to page 258 line 19.	said pattern. Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically

SWIT 280, Appendix A, Page 121 of 183

Support to instant specification.	Language	oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to decoder, 30 Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13. Said detection-complete information causes the selection of the next channel in the predetermined television channel selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of interest, at a fixed frequency, to decoder, 30 Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from	the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13. Said radio-detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 99.0 MHz. Automatically oscillator, 6, causes mixer, 2, to select said frequency and input it, at a fixed frequency, to decoder, 40 After determining, in a predetermined fashion, that a particular
dnS	Reference	Page 257 line 24 to page 258 line 19.	Page 265 line 27 to Page 266 line 21.
application filed November 3, 1981.	Language	The local oscillator, being thus sequenced, will allow each signal decoder, 30 and 40, to receive a particular frequency at a particular time interval.	
Support to parent appli	Reference	Column 9 lines 53-55.	
	Claim Language		

Claim I anmiage	Support to parent	Support to parent application filed November 3, 1981.	Supr	Support to instant specification.
Ciamin Language	Reference	Language	Reference	Language
-		_		
	-			predetermined period of time has elapsed from
				the input of said 99.0 MHz frequency to
				decoder, 40, controller, 20, causes
				oscillator, 6, to cause the selection of the next
				frequency in the predetermined radio
based on one of a	Column 8 lines 62-65.	The processor unit, 12, has the capacity to	Page 251 lines 3-8.	Thereafter, the embedded information is
presence and absence of		identify instruction signals for controller,	,	caused to be recorded in the same fashion
a broadcast signal; and		20, and pass them to controller, 20, over		that the embedded information of said
		control information lines.	-	message is detected and recorded at decoder,
				203, in example #3.
			Page 253 lines:10.11	Finally controller 301 transmits mortionlar
			1 450 200 miles 10-11.	detection-complete information to controller
				20;
			Page 253 lines 19-22.	Receiving said detection-complete
	`			oscillator 6 to cause the calegrica of the next
				channel in the predetermined television
	-			channel selection pattern: wireless channel 5.
-	Column 8 line 68 to	Buffer/comparator, 8, and monitor or	Page 258 lines 10-19.	Controller, 20, has capacity for keeping track
-	column 9 line 4.	processor, 12, each have the capacity to	•	of elapsed time, and after determining in a
		they look for its description of the signals that		predetermined fashion that a particular
		cet by and changed by controller 30 6:1		predetermined period of time has elapsed from
		set by and changeable by condoller, 20, fall		the input of wireless channel 9 to decoder, 30,
		to appear.		controller, 20, automatically causes control
				processor, 39J, to cause all apparatus of
				decoder, 50, cease receiving SPAM message
				received on said wireless channel 0 and senses
				occillator 6 to come the collection of the cont
				channel in the predetermined television
				channel selection nattern: wireless channel 13
(b) selecting and	Column 8 lines 27-29.	The controller, 20, inputs the local	Page 248 line 35 to	In a predetermined fashion, controller, 20,
receiving a broadcast		oscillator, 6, a sequential pattern to select	page 249 line 5.	controls oscillator, 6, to sequence local
signal		the various channels to be received by		oscillator, 6, in the pattern: cable channel 2,
		switch, 1, and mixers, 2 and 3.		cable channel 4, cable channel 7, cable
				channel 13, wireless channel 5, wireless
				channel 9, wireless channel 13, then to repeat
	Column () Lines 47.50	The contract of the second of		said pattern.
_	Column 9 innes 47-32.	I he controller, 20, is programed to	Page 248 line 17 to	Signal processor, 200, is preprogrammed

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Oleim I midlo	Support to parent	Support to parent application filed November 3, 1981.	Supp	Support to instant specification.
Ciaiiii Laiiguage	Reference	Language	Reference	Language
		sequence the local oscillator, 6, to select	page 249 line 5.	with information that identifies each cable and
		each desired frequency for a specific time		over-the-air (hereinafter, "wireless")
		interval in accordance with a		transmission or frequency in the locality of the
		nredetermined nattern This nattern may be		subscriber station of Fig. 3 as well as the
		selected in accordance with standard		standard broadcast and cablecast practices that
		broadcast and cablecast practices known		apply on said transmissions and frequencies
		to exist on that transmission line or		In a predetermined fashion, controller, 20
•		frequency		controls oscillator 6 to sequence local
				oscillator 6 in the nattern cable channel 2
				cable channel A cable channel 7 cable
		•		changed 12 minutes themself minutes
				chamile 15, wherest chamile 5, wherest
				channel 9, wireless channel 13, then to repeat
	-			said pattern.
			Dags 257 line 24 to	Soil dottoon of money and the following
			rage 237 life 24 to	Said detection-complete information causes
			page 230 lille 19.	controller, 20, to cause oscillator, 6, to cause
				the selection of the next channel in the
	,		-	predetermined television channel selection
				pattern: wireless channel 9. Automatically
				oscillator, 6, causes mixer, 3, to select the
				frequency of channel 9 and input said
				frequency of interest at a fixed frequency to
			•	decoder 30
				Controller 20 has canacity for
				keening track of alanged time and after
·				Accepting flack of elapsed fille, allel
				determining in a predetermined fashion that a
				particular predetermined period of time has
				elapsed from the input of wireless channel 9 to
				decoder, 30, controller, 20, causes
				oscillator, 6, to cause the selection of the next
				channel in the predetermined television
_				channel selection pattern: wireless channel 13.
	Column 9 lines 53-55.	The local oscillator, being thus sequenced,	Page 257 line 24 to	Said detection-complete information causes
		will allow each signal decoder, 30 and 40,	page 258 line 19.	controller, 20, to cause oscillator, 6, to cause
		to receive a particular frequency at a		the selection of the next channel in the
		particular time interval.		predetermined television channel selection
				pattern: wireless channel 9. Automatically
				oscillator, 6, causes mixer, 3, to select the
		-		frequency of channel 9 and input said
•				frequency of interest, at a fixed frequency, to
				decoder, 30
				Controller, 20, has capacity for keeping

upport to instant specification.	Language	track of elapsed time, and after determining in
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application filed November 3, 1981.	Language	
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			track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.
		Page 265 line 27 to Page 266 line 21.	Said radio-detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 99.0 MHz. Automatically oscillator, 6, causes mixer, 2, to select said frequency and input it, at a fixed frequency, to decoder, 40
			After determining, in a predetermined fashion, that a particular predetermined period of time has elapsed from the input of said 99.0 MHz frequency to decoder, 40, controller, 20, causes oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern. 100.0 MHz
Column 8 lines 62-65.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.	Page 251 lines 3-8.	Thereafter, the embedded information is caused to be recorded in the same fashion that the embedded information of said message is detected and recorded at decoder, 203, in example #3.
		Page 253 lines 10-11.	Finally, controller, 39J, transmits particular detection-complete information to controller, 20;
		Page 253 lines 19-22.	Receiving said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern, wireless channel 5
Column 8 line 68 to column 9 line 4.	Buffer/comparator, 8, and monitor or processor, 12, each have the capacity to	Page 258 lines 10-19.	Controller, 20, has capacity for keeping track of

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Claim I anguage	Support to parent	Support to parent application filed November 3, 1981.	Supp	Support to instant specification.
Claim Language	Reference	Language	Reference	Language
		inform controller, 20, when signals that they look for in predetermined fashions, set by and changeable by controller, 20, fail to appear.		elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, automatically causes control processor, 39J, to cause all apparatus of decoder, 30, cease receiving SPAM message information and delete all information received on said wireless channel 9 and causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.
receiving said at least one control signal	Column 19 lines 60-62.	At this point, an instruction signal is generated in the television studio originating the programing	Page 59 lines 29-33.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The Information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.
			Page 25 lines 34-35.	At this point, an instruction signal is generated at said program originating studio,
			Page 90 lines 4-7. Applicants teach this as the composition of the instruction signal of page 25 line 34. See page 26 lines 1-4 and 20-28, page 89 lines 3-6, and page 90 lines 4-11.	The second message is of the information associated with the second combining synch command. Said second command has a "00" header, an execution segment, and a metermonitor segment of five fields and addresses URS microcomputers, 205.
	Column 11 lines 38-39.	By comparing identification signals on the incoming programing	Page 327 line 35 to page 328 line 13.	Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information, with source mark information, received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via each distribution amplifier, 63 through 70, to

Support to instant specification.	Language
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				88
				matrix emitch 75
				iliduta swiicil, 73.
				By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.
			Page 84 lines 26-28.	SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions
			Page 28 lines 26-27.	monitor information that identifies what programming is available,
			Page 49 lines 26-27.	Meter-monitor segments contain meter information and/or monitor information.
which at said remote intermediate transmitter station operates to control communication of said at least one instruct signal; and	Column 11 lines 38-43.	By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing.	Page 327 line 35 to page 328 line 13.	Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information, with source mark information, received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via each distribution amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.

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				110000	
	·		Page 84 lines 26-28.	SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions	
			Page 28 lines 26-27.	monitor information that identifies what programming is available,	
			Page 49 lines 26-27.	Meter-monitor segments contain	_
	Column 11 lines 50-57.	if controller/computer, 73, determines that programing incoming via receiver, 53,	Page 328 line 22 to page 329 line 1.	For example, computer, 73, receives a given SPAM message that contains given "program	
		should be transmitted immediately to the field distribution system, 93, via cable		unit identification code" information and the added source mark information of said	
		channel modulator, 87, controller/computer, 73, instructs matrix		message identifies distribution amplifier, 63. Receiving said message causes commiter 73	
·		switch, 75, to configure its switches so as to		to determine, in a predetermined fashion, that	
		trom TV receiver, 53, to the output that		said "code" information matches particular preprogrammed schedule information of	
		leads to modulator, 87.		programming that is scheduled to be	
				retransmitted immediately upon receipt to field distribution system, 93, via cable channel	
				modulator, 87. In its preprogrammed fashion,	
				so determining causes computer, 73, to cause	
				matrix switch, /3, to configure its switches so as to transfer the programming fransmission	_
				inputted (via distribution amplifier, 63) to	
				matrix switch, 75, from TV receiver, 53, to	
				that output of matrix switch, 75, that outputs to modulator, 87.	
	Column 4 lines 5-6.	These techniques employ signals	Page 13 lines 25-26.	The present invention employs signals	Т
		embedded in programs.		embedded in programming.	
	Column 8 lines 58-60.	Control signals can be passed to the apparatus by means of the programing	Page 290 lines 26-31.	causes the oscillator, 6, then to cause	
		transmissions input at switch, 1, and mixer,		of a particular master cable control channel	
		2.		(that may or may not be cable channel 13)	
				from the multi-channel cable system	
				transmission inputted to signal processor, 200,	_^
				decoder, 30;	
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In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted.	The second message is of the information associated with the second combining synch command. Said second command has a "00" header, an execution segment, and a metermonitor	Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information, with source mark information, received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via
Page 291 lines 21-24.	Page 59 lines 29-31.	Page 59 lines 29-33.	Page 25 line 34 to page 26 line 1.	Page 90 lines 4-7. Applicants teach this as the composition of the instruction signal of page 25 line 34. See page 26 lines 1-4 and 20-28, page 89 lines 3-6, and page 90 lines 4-11	Page 327 line 35 to page 328 line 13.
		At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.			By comparing identification signals on the incoming programing
		Column 19 lines 60-63.			Column 11 lines 38-39.
·		transmitting said at least one control signal from said origination transmitter			

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each distribution amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.	SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions	monitor information that identifies what programming is available,	Meter-monitor segments contain meter information.	Such input information can indicate when and how the station should expect to receive each	program unit, when and on which channel or channels and how the station should transmit the unit,
	Page 84 lines 26-28.	Page 28 lines 26-27.	Page 49 lines 26-27.	Page 326 line 33 to page 327 line 2.	
				Such input information might also indicate when and on which channel or channels	the head end facility should transmit each program unit to cable field distribution system, 93.
				Column 11 lines 28-31.	
				before a specific time.	

19. The method of Column 4 lines 5-6.	Column 4 lines 5-6.	These techniques employ signals	Page 13 lines 25-26	The present invention employe signals
claim 18, further		embedded in programs.		embedded in programming
comprising the step of				
embedding				
a specific one of said at	Column 11 lines 38-39.	By comparing identification signals on	Page 327 line 35 to	Computer, 73, monitors incoming programming
least one control signal		least one control signal the incoming programing	page 328 line 13.	by means of the aforementioned dedicated
ın one ot				decoders of signal processor system, 71. By
,				means of the SPAM message information, with
				source mark information, received from code
				reader, 72, computer, 73, determines what
				specific program unit has been received by each
				receiver, 53 through 62, and is passing in line, via

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sport to instant specification.	Language
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Language	each distribution amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.	SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions	monitor information that identifies what programming is available,	Meter-monitor segments contain meter information and/or monitor information.	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
Keierence		Page 84 lines 26-28.	Page 28 lines 26-27.	Page 49 lines 26-27.	Page 290 lines 26-31.	Page 291 lines 21-24.	Page 59 lines 29-31.
Languago					Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.		
					Column 8 lines 58-60.		
					said at least one instruct signal and		

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pport to instant specification.	Language
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Language	AGas Grance	At signal processor system, 71, which is a system as shown in Fig. 2D, the outputted transmission of each distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70, is inputted into a dedicated decoder (such as decoders, 27, 28, and 29 in Fig. 2D) that processes continuously the inputted transmission of said distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70; selects SPAM messages in said transmission that are addresses to ITS apparatus of said intermediate transmission station;	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.		Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information, with source mark information, received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via each distribution amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.
Reference		Page 325 line 34 to page 326 line 7.	Page 59 lines 29-33	-	Page 327 line 35 to page 328 line 13.
Language		Signal processor, 71, has means, described above, to identify and separate the instruction and information signals from their associated programing and			By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing.
Reference		Column 11 lines 3-5.		Column 9 lines 31-33 Column 11 lines 50-57	Column 11 lines 38-43.
Ciaim Language		in an information transmission containing said at least one instruct signal	·		before

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application filed November 3, 1981.	Language
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SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions	monitor information that identifies what programming is available,	Meter-monitor segments contain meter information and/or monitor information.		A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted.	The second message is of the information associated with the second combining synch command. Said second command has a "00" header, an execution segment, and a metermonitor	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,	All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205. SWIT 280, Appendix A, Page 133 of 183
Page 84 lines 26-28.	Page 28 lines 26-27.	Page 49 lines 26-27.		Page 59 lines 29-33.	Page 25 line 34 to page 26 line 1.	Page 90 lines 4-7. Applicants teach this as the composition of the instruction signal of page 25 line 34. See page 26 lines 1-4 and 20-28, page 89 lines 3-6, and page 90 lines 4-11.	Page 435 lines 16-18.	Page 267 lines 20-28 from example #5.
				At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.			processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer comparator.	14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.
			Column 19 lines 64-65	Column 19 lines 60-63.			Column 19 lines 17-23.	
				transmitting at least a portion of said at least one instruct signal to said remote intermediate transmitter station.				

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application filed November	Language
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Support to instant specification	Language	Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the information segment of said message to the information so inputted is the aforementioned determine-whether- to-select instructions that contain said particular specific-WSW information and said enable-WSW-on-CC13 Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said station to view (or record) said "Wall Street Week" program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and determines a match with said second instance. Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW -on-CC13-at-particular- 8:30 information to the controller, 20.	to receive the transmission of cable channel 13; causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel
nS	Reference		Page 436 line 9 to page 437 line 3.	Page 439 lines 14-15. Page 290 lines 26-31.
Support to parent application filed November 3, 1981.	Language.			Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer,
Support to paren	Reference			Column 8 lines 58-60.
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pplication filed November 3, 1981.	Language
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Support to instant specification.	Language	(that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed	apparatus at subscriber stations. Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20. Receiving said please-fully-enable-WSW-on-CC13-at- particular-8:30	information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	instructions causes controller, 20, to switch
nS .	Reference		Page 291 lines 21-24.	Page 59 lines 29-31.	Page 437 linęs 1-6.		Page 439 lines 9-15.	Page 295 lines 6-8.	Page 439 lines 9-15.	Page 445 line 24 to
Support to parent application filed November 3, 1981.	Language	2 .	·		microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X					and also microcomputer, 205, may
Support to parent	Reference				Column 19 lines 23-25.					Column 19 lines 27-29.
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power on to monitor, 202M, and commence transferring the television output transmission of microcomputer, 205, to said monitor,	202M; Automatically, controller, 20, inputs a particular instruction to decoder, 145, via said communications link, that causes	decoder, 145, to switch power on to monitor, 202M, and to tune monitor, 202M, in a predetermined fashion.	In so doing, controller, 20, causes monitor, 202M, to receive the decrypted video and audio information of the "Wall Street Week"	program, to display the video image of said information, and to emit sound in accordance with said audio
page 446 line 1.			Page 446 lines 17-21.	
instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."	·		,	

Such input information can indicate when and how the station should expect to receive each program unit, when and on which channel or channels and how the station should transmit the unit	Such input information can include the complete programming schedule of the station of Fig. 6,	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,
Page 326 line 33 to page 327 line 2.	Page 326 lines 30-31.	Page 290 lines 26-31.	Page 291 lines 21-24.
Such input information might also indicate when and on which channel or channels the head end facility should transmit each program unit to cable field distribution system, 93.	Such input information might include the cable television system's complete programing schedule,	Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.	
Column 11 lines 28-31.	Column 11 lines 21-22.	Column 8 lines 58-60.	
20. The method of claim 18, wherein said specific time is a	scheduled time of transmitting one of	said at least one instruct signal	

Claim Language	Support to parent	Support to parent application filed November 3, 1981.	ddnS	Support to instant specification.	
299	Reference	Language	Reference	Language	
	-				
			Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	
	Column 8 lines 62-65.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.	Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	
		,	For example, page 531 lines 17-22.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch, 259	
and information associated with said at least one instruct signal	Column 4 lines 5-6.	These techniques employ signals embedded in programs.	Page 13 lines 25-26.	The present invention employs signals embedded in programming.	
from said remote intermediate transmitter station.	Column 12 lines 45-47.	Beyond channel combining system and multiplexer, 92, amplifier, 94, transmits programing to signal processor, 71, and signal processor, 96,	Page 337 lines 1-8.	Fig. 6 shows particular signal processor system monitoring apparatus associated with the intermediate station of Fig. 6. In field distribution system, 93, amplifier, 94, inputs programming transmissions to signal processor system, 71, (where said transmissions are inputted to one alternate contact of the switch, 1, of the signal processor of said system, 71), and amplifier, 95, inputs programming transmissions to signal processor, 96,	
	Column 11 lines 22-24 Column 11 lines 38-44				
	Column 11 lines 28-31.	Such input information might also indicate when and on which channel or channels the head end facility should transmit each program unit to cable field distribution system, 93.	Page 326 line 33 to page 327 line 2.	Such input information can indicate when and how the station should expect to receive each program unit, when and on which channel or channels and how the station should transmit the unit,	

A SPAM message is the modality whereby the	original transmission station that originates	
Page 59 lines 29-33.	•	
At this point, an instruction signal is	generated in the television studio	
Column 19 lines 60-63.		
21. A method of	controlling at least	
	d of Column 19 lines 60-63. At this point, an instruction signal is Page 59 lines 29-33. A SPAM message is the modality where	A method of Column 19 lines 60-63. At this point, an instruction signal is generated in the television studio

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1	See				
	Commands often contain meter-monitor	Page 44 lines 26-32.	rransmission.		
	is tuned.		systems, and possibly times of	-	
	transmission to which its associated apparatus		broadcast stations, channels on cable		one receiver station
	Intercrypted SPAM message in the		each. They may identify networks.		stations, said at least
	meter-monitor information of every		or data unit received and the source of		plurality of receiver
	to detect and transfer to said onboard		codes that may identify such programing		network having a
	Each one of said decoders is preprogrammed	Page 315 lines 20-24.	I he signals for which the decoders are	Column 15 lines 57-62.	said at least one
	following individual examples.				
	the station of Fig. 7 are demonstrated in the				
	Features, benefits, and modes of operation of	Page 396 lines 8-10.			
	persons.		here can permit.		
	such as television or radio is displayed to		of co-ordinated presentations that the sional annarans and methods described		
	and may be a home, an office, a theater, a		or and our is facilitated by consideration, first of individual examples of the types		
	the intermediate transmission station of Fig. 6;	-	receiving site. Consideration of FIGS.		
	station in the field distribution system, 93, of		office or other television and/or radio		
	Fig. 7 exemplifies one embodiment of an	Page 390 lines 30-35.	FIG 6 illustrates one possible	Column 17 lines 47-53.	one receiver station,
_		6, and page 90 lines 4- 11.			
		page 26 lines 1-4 and 20-28, page 89 lines 3-			
	monitor	instruction signal of page 25 line 34. See			
	header, an execution segment, and a meter-	the composition of the			
	associated with the second combining synch command. Said second command has a "00"	Page 90 lines 4-7. Applicants teach this as			
	transmitted.				
	at said program originating studio, embedded in the programming transmission, and	rage 23 line 34 to page 26 line 1.			
	At this point, an instruction signal is generated at said program originating studio, embedded	Page 25 line 34 to nage			
	transmitted SPAM messages.				
	consists of a series or stream of sequentially				-
	apparatus at subscriber stations. The		transmitted in the programing transmission.		
	said message controls specific addressed		originating the programing and is		
7	20-20	•			

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Support to parent application filed November 3, 1981.	Language
Claim I anguage	Cianni Languago

segments. Said segments contain meter information and/or monitor information, and the information of said segments causes subscriber station signal processor systems to assemble, record, and transmit meter records to remote billing stations and monitor records to remote billing stations in fashions that are described more fully below. Meter-monitor segments contain meter information and/or monitor information. Examples of categories of such information include: unique codes for programming; and unique codes that identify the sources and suppliers of computer data. origins of transmissions (eg., network source stations, broadcast stations, cable head end stations); dates and times	monitor information that identifies what programming is available,	Fig. 6 shows particular signal processor system monitoring apparatus associated with the intermediate station of Fig. 6. In field distribution system, 93, amplifier, 94, inputs programming transmissions to signal processor system, 71, (where said transmissions are inputted to one alternate contact of the switch, 1, of the signal processor of said system, 71), and amplifier, 95, inputs programming transmissions to signal processor, 96,	Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is configured for simultaneous use with a cablecast input that conveys both television and radio programming and a broadcast television input The inputted information is the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast
Page 49 line 26 to Page 50 line 4.	Page 28 lines 26-27.	Page 337 lines 1-8.	Page 29 lines 4-15.
		Beyond channel combining system and multiplexer, 92, amplifier, 94, transmits programing to signal processor, 71, and signal processor, 96,	A signal processor apparatus for simultaneous use with a cablecast input that conveys both television and radio programing and a broadcast television input is shown in Figure 1. As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast
·	•	Column 12 lines 45-47.	Column 6 lines 23-30.
			including one of a broadcast and a cablecast signal receiver,

	Support to parent	Support to parent application filed November 3, 1981.	ans	Support to instant specification
Claim Language	Reference	Language	Reference	Language
		television transmissions available to a local		television transmissions available to a local
at least one processor,	Column 19 lines 63-64.	This signal is identified by decoder, 203, and transferred via processor, 204, to	Page 26 lines 1-2.	Said signal is identified by decoder, 203; transferred to microcomputer, 205; and
		microcomputer, 205.	Page 37 line 26 to page 38 line 8.	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43,
				and 46. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is preprogrammed to identify in a predetermined fashion or fashions subscriber
				station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus.
a signal detector, said	Column 6 lines 48-50.	This base band signal is then transmitted	Page 34 line 35 to page	This base band signal is then transferred
signal detector		through separate paths to three separate detector devices.	35 line 1.	through separate paths to three separate detector devices.
adapted to receive signals from said one of		See Fig. 1		See Fig. 2
a broadcast and a				
cablecast signal receiver, and said				
processor programmed	Column 8 lines 20-25.	The signal processor apparatus also has a	Page 33 lines 7-12.	Signal processor, 26, has a controller device
2		programable random access memory		controller, 20; ROM, 21, that may contain
		controller 20, read only memory 21 that may contain a unique digital code canable		unique digital code information capable of identifying signal processor, 26, and the
		of identifying the signal processing		subscriber station of said processor, 26,
		apparatus uniquely, an automatic dialing device 24, and a telephone unit, 22.		uniquely; an automatic dialing device 24; and a telephone unit, 22.
respond to signals from said detector, said	Column 7 lines 50-58.	Processor or monitor, 12, analyzes, in a nre-determined faction the cional words	Page 31 lines 10-18.	Controller, 12, receives the signals inputted from huffer/comparator 8 and december 10.
method comprising the		and units that it receives and determines		analyzes said signals in a predetermined
steps of:	,	whether they are to be passed to external		fashion; and determines whether they are to be
		further processing or both. If a signal or		buffer/comparator, 14, or both. If a signal or
		signals are to be passed externally, processor unit 12 identifies in a pre-		signals are to be transferred externally, in a
		determined fashion, the external equipment		identifies the external apparatus to which the
		to which the signal or signals are		signal or signals are addressed and transfers

port to instant specification.	Language
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pplication filed November 3, 1981.	Language
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Claim I anguage	Cianti Fangames

them to the appropriate port or ports for external transmission.				In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. [The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.
	Page 324 lines 23-31.	Page 13 lines 25-26.	Page 290 lines 26-31.	Page 291 lines 21-24.	Page 59 lines 29-31. Page 16 lines 6-10.
addressed and passes them to appropriate jack ports for external transmission.	The facility receives programing from many sources. Transmissions may be received from satellites by satellite antenna, 50, low noise amplifiers, 51 and 52, and TV receivers, 53, 54, 55, and 56. Microwave transmissions can be received by microwave antenna, 57, and television video and audio receivers, 58 and 59. Conventional TV broadcast transmissions can be received by antenna, 60, and TV demodulator, 61. Other electronic	programing input means, 62 , can receive programing transmissions. These techniques employ signals embedded in programs.	Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.		[The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and
	Column 10 lines 30-39.	Column 4 lines 5-6.	Column 8 lines 58-60.		Column 5 lines 16-20.
	receiving at one of a broadcast and a cablecast transmitter station		an instruct signal which is effective at said at least one receiver station to perform one of the group consisting of:		

port to instant specification.	Language
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application filed November 3, 1981.	Language
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Claim Language	oging iiii iiii

Clain	Claim Language	Support to parent	Support to parent application filed November 3, 1981.		Support to instant specification.
	5	Reference	Language	Reference	Language
		Column 9 lines 47-52.	instructions. The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast marrices known to	Page 248 line 17 to page 249 line 5.	Signal processor, 200, is preprogrammed with information that identifies each cable and over-the-air (hereinafter, "wireless") transmission or frequency in the locality of the subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that
			exist on that transmission line or frequency.		apply on said transmissions and requencies In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 13, then to repeat said pattern.
				Page 257 line 24 to page 258 line 19.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said
<u>.</u>					frequency of interest, at a fixed frequency, to decoder, 30 Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a narticular predetermined neriod of time has
					elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.
(a) so receiving a signal	(a) selecting and receiving a cablecast signal	Column 8 lines 27-29.	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	Page 248 line 35 to page 249 line 5.	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable
		Column 9 lines 47-52.	The controller, 20, is programed to	Page 248 line 17 to	channel 13, wireless channel 5, wireless channel 9, wireless channel 13, then to repeat said pattern. Signal processor, 200, is preprogrammed

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Support to instant specification.	Language	with information that identifies each cable and over-the-air (hereinafter, "wireless") transmission or frequency in the locality of the subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that apply on said transmissions and frequencies In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 13, then to repeat said pattern.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to decoder, 30 Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel 13. Said detection-complete information causes the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9 and input said frequency of channel 9 and input said frequency of interest, at a fixed frequency, to decoder, 30
	Reference	page 249 line 5.	Page 257 line 24 to page 258 line 19. Page 257 line 24 to page 257 line 24 to page 257 line 19.
Support to parent application filed November 3, 1981.	Language	sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.	The local oscillator, being thus sequenced, will allow each signal decoder, 30 and 40, to receive a particular frequency at a particular time interval.
Support to paren	Reference		Column 9 lines 53-55.
	Claim Language		

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Support to instant specification.	Language		track of elapsed time, and after determining in	a predetermined fashion that a particular	predetermined period of time has elapsed from	the input of wireless channel 9 to decoder, 30,	controller, 20, causes oscillator, 6, to cause	the selection of the next channel in the	predetermined television channel selection
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application filed November 3, 1981.	Language								
Support to parent appli	Reference								
Claim Language	299								

track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.	Said radio-detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 99.0 MHz. Automatically oscillator, 6, causes mixer, 2, to select said frequency and input it, at a fixed frequency, to decoder, 40	After determining, in a predetermined fashion, that a particular predetermined period of time has elapsed from the input of said 99.0 MHz frequency to decoder, 40, controller, 20, causes oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 100.0 MHz.	Thereafter, the embedded information is caused to be recorded in the same fashion that the embedded information of said message is detected and recorded at decoder, 203, in example #3.	Finally, controller, 39J, transmits particular detection-complete information to controller, 20;	Receiving said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the readstruction	channel selection pattern: wireless channel 5. Controller, 20, has capacity for keeping track of elapsed time, and after determining in a
	Page 265 line 27 to Page 266 line 21.		Page 251 lines 3-8.	Page 253 lines 10-11.	Page 253 lines 19-22.	Page 258 lines 10-19.
			The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.			Buffer/comparator, 8, and monitor or processor, 12, each have the capacity to
			Column 8 lines 62-65.			Column 8 line 68 to column 9 line 4.
			based on one of a presence and absence of a broadcast signal; and			

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Claim Language			220	poir to margin appendication.
99	Reference	Language	Reference	Language
		inform controller, 20, when signals that they look for in predetermined fashions, set by and changeable by controller, 20, fail to appear.		predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, automatically causes control processor, 39J, to cause all apparatus of decoder, 30, cease receiving SPAM message information and delete all information received on said wireless channel 9 and causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern, wireless channel 13
(b) selecting and receiving a broadcast signal	Column 8 lines 27-29.	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	Page 248 line 35 to page 249 line 5.	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 9, wireless channel 13, then to repeat
-	Column 9 lines 47-52.	The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.	Page 248 line 17 to page 249 line 5.	Signal processor, 200, is preprogrammed with information that identifies each cable and over-the-air (hereinafter, "wireless") transmission or frequency in the locality of the subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that apply on said transmissions and frequencies In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 9, wireless channel 13, then to repeat said pattern.
			Page 257 line 24 to page 258 line 19.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to

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	Support to parent appl	application filed November 3, 1981	Sim	Support to instant specification
Claim Language	Reference	Language	Reference	Language
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				Controller, 20, has capacity for
				keeping track of elapsed time, and after
				determining in a predetermined fashion that a
				particular predetermined period of time has
	-			elapsed from the input of wireless channel 9 to
				decoder, 30, controller, 20, causes
				oscillator, 6, to cause the selection of the next
				channel in the predetermined television
				channel selection pattern: wireless channel 13.
	Column 9 lines 53-55.	The local oscillator, being thus sequenced,	Page 257 line 24 to	Said detection-complete information causes
		will allow each signal decoder, 30 and 40,	page 258 line 19.	controller, 20, to cause oscillator, 6, to cause
		to receive a particular frequency at a		the selection of the next channel in the
		particular time interval.		predetermined television channel selection
				pattern: wireless channel 9. Automatically
				oscillator, 6, causes mixer, 3, to select the
				frequency of channel 9 and input said
				frequency of interest, at a fixed frequency, to
				decoder, 30
				Controller, 20, has capacity for keeping
				track of elapsed time, and after determining in
				a predetermined fashion that a particular
				predetermined period of time has elapsed from
				the input of wireless channel 9 to decoder, 30,
				controller, 20, causes oscillator, 6, to cause
				the selection of the next channel in the
				predetermined television channel selection
				pattern: wireless channel 13.
			Page 265 line 27 to	Said radio-detection-complete information
			Page 266 line 21.	causes controller 20 to cause oscillator 6
			•	to cause the selection of the next frequency in
				the predetermined radio frequency selection
				pattern: 99 0 MHz Automatically oscillator
				6, causes mixer, 2, to select said frequency
				and input it, at a fixed frequency, to decoder,
				40
				After determining in a

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	Reference	Language	Reference	Language	
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				frequency in the predetermined radio frequency selection pattern: 100.0 MHz.	
based on one of a presence and absence of a cablecast signal;	Column 8 lines 62-65.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.	Page 251 lines 3-8.	Thereafter, the embedded information is caused to be recorded in the same fashion that the embedded information of said message is detected and recorded at decoder, 203, in example #3.	
			Page 253 lines 10-11.	Finally, controller, 39J, transmits particular detection-complete information to controller, 20;	
			Page 253 lines 19-22.	Receiving said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern wireless channel 5	
	Column 8 line 68 to column 9 line 4.	Buffer/comparator, 8, and monitor or processor, 12, each have the capacity to inform controller, 20, when signals that they look for in predetermined fashions, set by and changeable by controller, 20, fail to appear.	Page 258 lines 10-19.	Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, automatically causes control processor, 39J, to cause all apparatus of decoder, 30, cease receiving SPAM message information and delete all information received on said wireless channel 9 and causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection nattern: wireless channel 13	
	Column 10 lines 40-47.	All of these received transmissions feed into the facility by hard-wire and connect, by means of conventional switches (here matrix switch, 75), to one or more video recorder/players, 76 and 78, and/or to	Page 324 line 31 to page 325 line 4.	Each receiver/modulator/input apparatus, 53 through 62, transfers its received transmissions into the station by hard-wire, a conventional matrix switch, 75, well known in the art, one or more recorder/players, 76 and	_

The station receives programming from many SWIT 280, Appendix A, Page 147 of 183

field distribution system, 93, which apparatus includes cable channel modulators, 83, 87,

and 91, and channel combining and

multiplexing system, 92.

Page 324 lines 23-31.

receiving at least one | Column 10 lines 30-39. | The facility receives programing from

multiplexing system, 92.

distribution system, 93, which equipment includes here cable channel modulators, 83, 87, and 91, and channel combining and

equipment that outputs them over various

channels to the cable system's field

the art, one or more recorder/players, 76 and 78, apparatus that outputs said transmissions over various channels to the cable system's

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Claim Language	Ciaini Languago

sources. Transmissions are received from a satellite by satellite antenna, 50, low noise amplifiers, 51 and 52, and TV receivers, 53, 54, 55, and 56. Microwave transmissions are received by microwave antenna, 57, and television video and audio receivers, 58 and 59. Conventional TV broadcast transmissions are received by antenna, 60, and TV demodulator, 61. Other electronic programming transmissions are received by other programming input means, 62. The present invention employs signals embedded in programming.	The frequencies may convey television, radio, or other programming transmissionsThe scanners/switches, working in parallel or series or combinations, transfer the transmissions to receiver/decoder/detectors that identify signals encoded in programming transmissions and convert the encoded signals to digital information; identifies the particular apparatus to which said signals are addressed, and outputs said signals to said apparatus A command is an instance of signal information that is addressed to particular subscriber station apparatus and that Receiving the header and execution segment of said first message causes controller, 39, to determine that said message is addressed to URS microcomputers, 205, and to transfer said message to microcomputer, 205.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
Page 13 lines 25-26.	Page 15 lines 16-23. Page 34 lines 24-26. Page 44 lines 14-15. Page 95 lines 18-21.	Page 59 lines 29-31.
many sources. Transmissions may be received from satellites by satellite antenna, 50, low noise amplifiers, 51 and 52, and TV receivers, 53, 54, 55, and 56. Microwave transmissions can be received by microwave antenna, 57, and television video and audio receivers, 58 and 59. Conventional TV broadcast transmissions can be received by antenna, 60, and TV demodulator, 61. Other electronic programing input means, 62, can receive programing transmissions. These techniques employ signals embedded in programs.	Signal processor apparatus have the ability to identify instruction and information signals in one or more inputted television and radio programing transmissions, identify and discriminate among one or more pieces of external equipment to which such signals are addressed, and transfer such signals to such equipment as directed.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.
Column 4 lines 5-6.	Column 17 lines 39- 44.	Column 8 lines 62-65.
control signal at said one of a broadcast and a cablecast transmitter station, said at one least	control signal designating said at least one receiver station of said plurality of receiver stations in which said instruct signal is addressed; and	·

	Support to instant specification.	Language
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transferring said at least one control signal to said transmitter, said one of a broadcast and a cablecast transmitter station one of	Column 8 lines 62-65.	All of these received transmissions feed into the facility by hard-wire and connect, by means of conventional switches (here matrix switch, 75), to one or more video recorder/players, 76 and 78, and/or to equipment that outputs them over various channels to the cable system's field distribution system, 93, which equipment includes here cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system, 92. The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.	For example, page 531 lines 17-22. Page 324 line 31 to page 325 line 4. Page 59 lines 29-31. For example, page 531 lines 17-22.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch, 259. Each receiver/modulator/input apparatus, 53 through 62, transfers its received transmissions into the station by hard-wire, a conventional matrix switch, 75, well known in the art, one or more recorder/players, 76 and 78, apparatus that outputs said transmissions over various channels to the cable system's field distribution system, 93, which apparatus includes cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system, 92. A SPAM message is the modality whereby the original transmission station that eviginal transmission station that original transmission station that originates said messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20, and switch controller, 20, and switch controller, 20, rather than via matrix switch, 259
broadcasting and cablecasting said	Column 10 lines 15-20.	The signal processing apparatus outlined in FIGS. 1, A, 2B, and 2C, and their variants as appropriate, can be used to automate the operations of an intermediate transmission point whether it be a broadcast station transmitting only a single channel of programing or a cable system cablecasting many channels.	Page 324 lines 8-17.	The signal processing apparatus outlined in Figs. 2, 2A, 2B, 2C, and 2D, and their variants as appropriate, can be used to automate the operations of intermediate transmission stations that receive and retransmit programming. The stations so automated may transmit any form of electronically transmitted programming, including television, radio, print, data, and combined medium programming and may range in scale of operation from wireless broadcast stations that transmit a single

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-				programming transmission to cable systems that cablecast many channels simultaneously.	
instruct signal and said at least one	Column 8 lines 58-60.	Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.	Page 290 lines 26-31.	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	
			Page 291 lines 21-24.	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	
·			Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	<u>.</u>
control signal to said plurality of receiver stations.	Column 8 lines 62-65.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.	Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	
			For example, page 531 lines 17-22.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch, 259	

22. The method of Column 4 lines 5-6.	Column 4 lines 5-6.	These techniques employ signals	Page 13 lines 25-26.	The present invention employs signals
claim 21, wherein one of said instruct signal		embedded in programs.		embedded in programming.
and said at least one	Column 8 lines 58-60.	Control signals can be passed to the	Page 290 lines.26-31.	causes the oscillator, 6, then to cause
control signal is		apparatus by means of the programing)	switch, 1, and mixer, 3, to select information
embedded in a		transmissions input at switch, 1, and mixer,		of a particular master cable control channel

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Claim I anguage	Claim Language

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1011	(that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch, 259		Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is configured for simultaneous use with a cablecast input that conveys both television and radio	programming and a proadcast television input. The inputted information is the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast relevision franchiscions available to a local	television antenna of conventional design. In due course, while scanning sequentially all channels in the fashion of example #5, the
1000 11		Page 291 lines 21-24.	Page 59 lines 29-31.	Page 59 lines 29-31.	For example, page 531 lines 17-22.		Page 29 lines 4-15.	See Fig. 7.	Page 435 lines 16-18.
	· · · · · · · · · · · · · · · · · · ·			The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.			A signal processor apparatus for simultaneous use with a cablecast input that conveys both television and radio programing and a broadcast television in the state of the stat	input is shown in righte 1. As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast relevision transmissions available to a local	television antenna of conventional design pass all program and channel identifiers on all programing being cablecast on the
		·		Column 8 lines 62-65.		Column 4 lines 17-22 Column 19 lines 42-44	Column 6 lines 23-30.	See Figs. 6F & G.	Column 19 lines 14-15.
							non-visible portion of one of a television signal, a multichannel broadcast signal, and a	contains video.	

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Support to instant specification.	· Language	_	apparatus of the signal processor, 200, of the station of Fig. 7 and 7C	Via a conventional multi- channel cable transmission, in a fashion well known in the	programming and two conventional FM radio signals are inputted to a first alternate contact	of switch, 1, and to mixer, 2.	Example #5 begins with the embedding and	originates the "Wall Street Week" broadcast,	of the first message of the "Wall Street Week" program	Then, in a predetermined fashion, control	processor, 391, determines that said first	command contains subject matter	control processor, 39J, to transmit a message	that consists of execution segment	information that is addressed to	microcomputer, 205, (and trial causes)	information of the meter- monitor segment	immediately following said execution segment	information as new programming now being	mark of said meter-monitor segment segment)	then meter-monitor segment information that	includes the "program unit identification	code" and subject matter information of said	first command and the channel mark of	transmission is caused by receiving said first
Sup	Reference	_		Page 248 lines 22-26 from example #5.			Page 250 lines 13-16	TOTH CARTIFOL #3.		Page 252 lines 15-35	from example #5.														
application filed November 3, 1981.	Language		multi-channel system.															-						•	
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transmission is caused by receiving said first command enables microcomputer, 205, in a fashion described more fully below, to tune automatically to receive the program that said "program unit identification code" identifies if said program is of interest, ...

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Support to instant specification.	Language	All eight of said messages are commands. The 1st- and 3rd-new-program-message (#5) and the 1st-new-radio-program- message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200, All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, The information so inputted is the aforementioned determine-whether- to-select instructions that contain said particular specific-WSW information and said enable-WSW-on-CC13 Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205,
	Reference	Page 267 lines 20-28 from example #5.	Page 435 lines 16-18. Page 267 lines 20-28 from example #5.	Page 436 line 9 to page 437 line 3.
Support to parent application filed November 3, 1981.	Language		processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.	
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application filed November 3, 1981.	Language
Support to parent	Reference
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At signal processor system, 71, which is a system as shown in Fig. 2D, the outputted transmission of each distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70, is inputted into a dedicated decoder (such as decoders, 27, 28, and 29 in Fig. 2D) that processes	continuously the inputted transmission of said distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70; selects SPAM messages in said transmission that are addresses to ITS	apparatus of said intermediate transmission station, automatically adds, in a predetermined fashion source mark information that identifies said associated distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70; and transfers said selected	messages, with said source mark information, to code reader, 72. Code reader, 72, buffers and passes the received SPAM message information, with source mark information, to cable program
Page 325 line 34 to page 326 line 11.			Page 326 lines 16-18.
Signal processor, 71, has means, described above, to identify and separate the instruction and information signals from their associated programing and pass them, along with information identifying the channel source of each signal, externally to	code reader, 72 Code reader, 72, passes the received signals, with channel identifiers, to cable program controller and computer, 73.		
The method of Column 11.lines 3-14. wherein said ne control stiffes			
23. The method of claim 21, wherein said at least one control signal identifies			

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				controller and computer, 73.
two of said plurality of	Column 19 lines 63-64.		Page 26 lines 1-2.	Said signal is identified by decoder, 203;
receiver stations		and transferred via processor, 204, to microcomputer, 205.		transferred to microcomputer, 205; and
		•	Page 37 line 26 to page	In each decoder, the controller, 39, 44, or 47,
			38 line 8.	receives detected digital information from the
				relevant detector or detectors, 34, 37, 38, 43,
				and 46. Upon receiving any given instance of
			-	signal information, controller, 39, 44, or 47, is
				preprogrammed to identify in a
				predetermined fashion or fashions subscriber
				station apparatus to which said signal
				transfer said signals to said apparatus.
asynchronously and	Column 10 lines 15-20.	The signal processing apparatus outlined in	Page 324 lines 8-17.	The signal processing apparatus
each of said two		FIGS. 1, A, 2B, and 2C, and their variants		outlined in Figs. 2, 2A, 2B, 2C, and 2D, and
receiver stations		as appropriate, can be used to automate the		their variants as appropriate, can be used to
***		operations of an intermediate transmission		automate the operations of intermediate
		point whether it be a broadcast station		transmission stations that receive and
		transmitting only a single channel of		retransmit programming. The stations so
		programing or a cable system cablecasting		automated may transmit any form of
		many channels.		electronically transmitted programming,
				including television, radio, print, data, and
				combined medium programming and may
				range in scale of operation from wireless
				broadcast stations that transmit a single
				programming transmission to cable systems
	:			that cablecast many channels simultaneously.
	Column 17 lines 47-53.	FIG 6 illustrates one possible	Page 390 lines 30-35.	Fig. 7 exemplifies one embodiment of an
		configuration of equipment in a home or		ultimate receiver station; is a subscriber
		office or other television and/or radio		station in the field distribution system, 93, of
		receiving site. Consideration of FIGS.		the intermediate transmission station of Fig. 6;
		6F and 6G is facilitated by consideration,		and may be a home, an office, a theater, a
		first, of individual examples of the types		hotel, or any other station where programming
		of co-ordinated presentations that the		such as television or radio is displayed to
		signal apparatus and methods described here can permit.		persons.
		•	Page 396 lines 8-10.	Features, benefits, and modes of operation of
				the station of Fig. 7 are demonstrated in the
				following individual examples.
receive and respond to said instruct signal	Column 11 lines 3-14.	Signal processor, 71, has means, described above, to identify and separate the	Page 325 line 34 to page 326 line 11.	At signal processor system, 71, which is a system as shown in Fig. 2D, the outputted
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pplication filed November 3, 1981.	Language
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transmission of each distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70, is inputted into a dedicated decoder (such as decoders, 27, 28, and 29 in Fig. 2D) that processes continuously the inputted transmission of said distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70; selects SPAM messages in said transmission that are addresses to ITS apparatus of said intermediate transmission station, automatically adds, in a predetermined fashion source mark information that identifies said associated distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70; and transfers said selected messages, with said source mark information, to code reader, 72.	Code reader, 72, buffers and passes the received SPAM message information, with source mark information, to cable program controller and computer, 73.	Said signal is identified by decoder, 203; transferred to microcomputer, 205; and	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is preprogrammed to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred; and to transfer said signals to each annualist	The signal processing apparatus outlined in Figs. 2, 2A, 2B, 2C, and 2D, and their variants as appropriate, can be used to automate the operations of intermediate transmission stations that receive and retransmit programming. The stations so automated may transmit any form of electronically transmitted programming,
	Page 326 lines 16-18.	Page 26 lines 1-2.	Page 37 line 26 to page 38 line 8.	Page 324 lines 8-17.
instruction and information signals from their associated programing and pass them, along with information identifying the channel source of each signal, externally to code reader, 72 Code reader, 72 Code reader, 73. passes the received signals, with channel identifiers, to cable program controller and computer, 73.		This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205.		The signal processing apparatus outlined in FIGS: 1, A, 2B, and 2C, and their variants as appropriate, can be used to automate the operations of an intermediate transmission point whether it be a broadcast station transmitting only a single channel of programing or a cable system cablecasting many channels.
		Column 19 lines 63-64.		Column 10 lines 15-20.
				asynchronously.

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application filed November 3, 1981.	Language
Support to parent a	Reference
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including television, radio, print, data, and combined medium programming and may range in scale of operation from wireless broadcast stations that transmit a single programming transmission to cable systems that cablecast many channels simultaneously.	Fig. 7 exemplifies one embodiment of an ultimate receiver station; is a subscriber station in the field distribution system, 93, of the intermediate transmission station of Fig. 6, and may be a home, an office, a theater, a hotel, or any other station where programming such as television or radio is displayed to persons.	Features, benefits, and modes of operation of the station of Fig. 7 are demonstrated in the following individual examples.
	Page 390 lines 30-35.	Page 396 lines 8-10.
	FIG 6 illustrates one possible configuration of equipment in a home or office or other television and/or radio receiving site. Consideration of FIGS. 6F and 6G is facilitated by consideration, first, of individual examples of the types of co-ordinated presentations that the signal apparatus and methods described here can permit.	
	Column 17 lines 47-53.	·

24. The method of		Matrix Switch, 75, in Fig. 3B.		Matrix Switch 75 in Fig. 6A
claim 21, wherein a				19: 01:
switch communicates				
said signals selectively				
from said one of a		TV receiver, 53, in Fig. 3A.		TV receiver .53, in Fig. 6A.
broadcast and a				
cablecast signal				
receiver and				
one of a memory		VTR, 78, in Fig. 3B.		78, in Fig. 6A.
			Page 324 line 34	recorder/players, 76 and 78
and recorder to		Recorder and Player, 76, in Fig. 3B.		Recorder and Player, 76, in Fig. 6A.
said transmitter, said		Cable Channel Modulator, 83, in Fig. 3C.		Cable Channel Modulator, 83, in Fig. 6B.
method further				
comprising one from				
the group consisting of:				
		1,000		
detecting a signal of	Column 11 lines 38-46.	By comparing identification signals on the	Page 327 line 35 to	Computer, 73, monitors incoming
said signals which is		incoming programing with the programing	page 328 line 13.	programming by means of the aforementioned
effective at the		schedule received earlier from local input,		dedicated decoders of signal processor system,
transmitter station to		74, and/or from a remote site via network,		71. By means of the SPAM message
		98, controller/computer, 73, can determine		information, with source mark information,

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	when and on what channel or channels the head end facility should transmit the		received from code reader, 72, computer, 73, determines what specific program unit has
	Controller/computer, 73, has means for communicating control information with matrix switch, 75, and video		been received by each receiver, 33 through 02, and is passing in line, via each distribution amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor
			information of the programming schedule received earlier from input 74 and/or
			network, 98, computer, 73, can determine, in a predetermined fashion, when and on what
			channel or channels the station of Fig. 6 should transmit the programming of each received program unit.
		Page 84 lines 26-28.	SPAM signals are generated at original transmission stations or internediate transmission stations and embedded in television or radio or other programming transmissions
		Page 28 lines 26-27.	monitor information that identifies what programming is available,
		Page 49 lines 26-27.	Meter-monitor segments contain meter information and/or monitor information.
		Page 328 lines 14-16.	Computer, 73, has means for communicating control information with matrix switch, 75, and video recorders, 76 and 78,
Column 11 lines 54-57.	controller/computer, 73, instructs matrix switch 75 to configure its switches so as to	Page 328 line 31 to	In its preprogrammed fashion, so determining
	transfer programing transmissions inputted	Pu65 247 11110 1:	75, to configure its switches so as to transfer
	from TV receiver, 53, to the output that leads to modulator, 87.		the programming transmission inputted (via distribution amplifier, 63) to matrix switch,
			75, from TV receiver, 53, to that output of
			matrix switch, 75, that outputs to modulator, 87.
Column 11 lines 50-54.	For example, if controller/computer, 73,	Page 328 lines 22-31.	For example, computer, 73, receives a given
	determines that programming incoming via receiver 53 should be transmitted		SPAM message that contains given "program
	immediately to the field distribution		added source mark information of said

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system, 93	system, 92 87,	system, 93, via cable channel modulator, 87,	·	message identifies distribution amplifier, 63. Receiving said message causes computer, 73, to determine that said "code" information matches schedule information of programming that is scheduled to be retransmitted immediately upon receipt to field distribution system, 93, via cable channel modulator, 87.
Column 11 lines 54-57. switch, 7 transfer, 7 from TV from TV leads to	switch, 7 transfer from TV leads to	controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.	Page 328 line 31 to page 329 line 1.	In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 63) to matrix switch, 75, from TV receiver, 53, to that output of matrix switch, 75, that outputs to modulator, 87.
Column 11 lines 38-46. By comparing proceeding preschedule rec 74, and/or fi 98, controll when and on head end factorial programing. Controll communical matrix switce recorder/pla	By comincomin schedul 74, and 98, con when a head en program Con commu matrix s recorded	By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing. Controller/computer, 73, has means for communicating control information with matrix switch, 75, and video recorder/players, 76 and 78.	Page 327 line 35 to page 328 line 13	Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information, with source mark information, received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via each distribution amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.
			Page 84 lines 26-28.	SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions
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			Page 28 lines 26-27.	monitor information that identifies what programming is available,	
			Page 49 lines 26-27.	Meter-monitor segments contain meter information and/or monitor information.	
			Page 328 lines 14-16.	Computer, 73, has means for communicating control information with matrix switch, 75, and video recorders, 76 and 78,	
controlling said switch to communicate a signal of said signals from	Column 11 lines 54-57.	controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.	Page 328 line 31 to page 329 line 1.	In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 63) to matrix switch, 75, from TV receiver, 53, to that output of matrix switch, 75, that outputs to modulator, 87.	20
a selected signal source;	Column 11 lines 50-54.	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87,	Page 328 lines 22-31.	For example, computer, 73, receives a given SPAM message that contains given "program unit identification code" information and the added source mark information of said message identifies distribution amplifier, 63. Receiving said message causes computer, 73, to determine that said "code" information matches schedule information of programming that is scheduled to be retransmitted immediately upon receipt to field distribution system, 93, via cable channel modulator, 87.	
controlling said switch to communicate to said one of a memory and recorder a signal of said signals which is effective at the receiver station to instruct.	Column 11 lines 61-64.	in a predetermined fashion, to record the incoming programing, instructs matrix switch, 75, to transfer the programing to the designated recorder/player, 76 or 78,	Page 329 lines 13-20.	in its preprogrammed fashion, to record programming; and to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 67) from television receiver, 58, to the output that leads to said selected recorder, 76 or 78.	S

In its preprogrammed fashion, so determining	causes computer, 73, to cause matrix switch,	75, to configure its switches so as to transfer	
Page 328 line 31 to	page 329 line 1.		
controller/computer, 73, instructs matrix Page 328 line 31 to	switch, 75, to configure its switches so as to page 329 line 1.	transfer programing transmissions inputted	
Column 11 lines 54-57.			
25. The method of	claim 21, wherein a	controller controls a	

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America	the programming transmission inputted (via distribution amplifier, 63) to matrix switch, 75, from TV receiver, 53, to that output of matrix switch, 75, that outputs to modulator, 87.	Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information, with source mark information, received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via each distribution amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.	SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions	monitor information that identifies what programming is available,	Meter-monitor segments contain meter information and/or monitor information.	Computer, 73, has means for communicating control information with matrix switch, 75, and video recorders, 76 and 78,
		Page 327 line 35 to page 328 line 13.	Page 84 lines 26-28.	Page 28 lines 26-27.	Page 49 lines 26-27.	Page 328 lines 14-16.
	from TV receiver, 53, to the output that leads to modulator, 87.	By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing. Controller/computer, 73, has means for communicating control information with matrix switch, 75, and video recorder/players, 76 and 78.				
		Column 11 lines 38-46.				
	switch to communicate to said transmitter a selected signal of said signals, further comprising one from the group consisting of:	detecting a signal of said signals which is effective at the transmitter station to				

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	,			
instruct transmission;	Column 11 lines 50-57.	if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.	Page 328 line 22 to page 329 line 1.	For example, computer, 73, receives a given SPAM message that contains given "program unit identification code" information and the added source mark information of said message identifies distribution amplifier, 63. Receiving said message causes computer, 73, to determine, in a predetermined fashion, that said "code" information matches particular preprogrammed schedule information of programming that is scheduled to be retransmitted immediately upon receipt to field distribution system, 93, via cable channel modulator, 87. In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 63) to matrix switch, 75, from TV receiver, 53, to that outputs to modulator. 87.
inputting to said controller a signal of said signals which is effective to	Column 11 lines 32-39.	By means of the signals, with channel indicators, received from code reader, 72, controller/computer, 73, can determine what specific programing and programing unit has been received by each receiver, 53 through 62, and is passing in line on each individual wire to matrix switch, 75. By comparing identification signals on the incoming programing with the programing schedule	Page 328 line 13.	Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information, with source mark information, received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via each distribution amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.
			Page 84 lines 26-28.	SPAM signals are generated at original transmission stations or intermediate

				transmission stations and embedded in television or radio or other programming transmissions	
			Page 28 lines 26-27.	monitor information that identifies what programming is available,	
			Page 49 lines 26-27.	Meter-monitor segments contain meter information and/or monitor information.	
control said switch;	Column 11 lines 50-57.	if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the	Page 328 line 22 to page 329 line 1.	For example, computer, 73, receives a given SPAM message that contains given "program unit identification code" information and the	Ţ <u> </u>
		field distribution system, 93, via cable channel modulator, 87,		added source mark information of said message identifies distribution amplifier, 63.	_
		controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to		Receiving said message causes computer, 73, to determine, in a predetermined fashion, that	
		transfer programing transmissions inputted from TV receiver. 53. to the output that		said "code" information matches particular preprogrammed schedule information of	
		leads to modulator, 87.		programming that is scheduled to be	
				retransmitted immediately upon receipt to field distribution system, 93, via cable channel	
				modulator, 87. In its preprogrammed fashion,	
				so determining causes computer, 73, to cause matrix switch 75 to configure its enriches so	
-				as to transfer the programming transmission	
				inputted (via distribution amplifier, 63) to	
				matrix switch, /5, from IV receiver, 53, to	
				that output of matrix switch, /5, that outputs to modulator, 87.	
controlling said	Column 11 lines 54-57.	controller/computer, 73, instructs matrix	Page 328 line 31 to	In its preprogrammed fashion, so determining	
switch to communicate at least one signal of		switch, /3, to configure its switches so as to transfer programing transmissions inputted	page 329 line 1.	causes computer, 73, to cause matrix switch,	
said signals		from TV receiver, 53, to the output that		the programming transmission inputted (via	
		leads to modulator, 87.		distribution amplifier, 63) to matrix switch,	
				75, from TV receiver, 53, to that output of	
-				matrix switch, 75, that outputs to modulator, 87.	
according to a	Column 11 lines 38-43.	By comparing identification signals on the	Page 327 line 35 to	Computer, 73, monitors incoming	Г
transmission schedule;		incoming programing with the programing schedule received earlier from local input	page 328 line 13.	programming by means of the aforementioned	
٠		74. and/or from a remote site via network		uculcated decoders of signal processor system, 71 By means of the SPAM message	<u>.</u>
		98, controller/computer, 73, can determine		information, with source mark information,	
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		when and on what channel or channels the		received from code reader, 72, computer, 73,
	-	nead end facility should transmit the		determines what specific program unit has
		programmy.		been received by each receiver, 53 through 62,
				and is passing in line, via each distribution
				amplifier, 63 through 70, to matrix switch, 75.
-				By comparing selected meter-monitor
				information of said message information with
				information of the programming schedule
				received earlier from input, 74, and/or
				network, 98, computer, 73, can determine, in a
				predetermined fashion, when and on what
				channel or channels the station of Fig. 6
				should transmit the programming of each
		-		received program unit.
			Dage 84 lines 26-28	SDAM citatole and accounted of continued
			* #85 01 111103 FO-703.	transmission stations or intermediate
				transmission stations and embedded in
				telemeion or redio or other
				television or radio or other programming
-	•			
			Page 28 lines 26-27.	monitor information that identifies what
				programming is available,
			Dec. 40 lines 25 27	
			rage 49 lines 20-27.	Meter-monitor segments contain
	11 ling 50 57	3:	220 1: 22	ineter intormation and/or monitor information.
contouring said	Column 11 lines 50-57.	if controller/computer, 73, determines	Page 328 line 22 to	For example, computer, 73, receives a given
from a gracific one of		ulat programmig incoming via receiver, 53,	page 529 line 1.	SPAM message that contains given "program
monta specific one of		field distribution system 02 win soble		unit identification code" information and the
		channel modulator 97		added source mark information of said
		controller/committer 72 instructs matrix		message identifies distribution amplifier, 63.
		switch 75 to configure its switches so as to		to determine in a produtermined fashion that
		transfer programing transmissions inputted		said "code" information matches particular
		from TV receiver, 53, to the output that		preprogrammed schedule information of
		leads to modulator, 87.		programming that is scheduled to be
				retransmitted immediately upon receipt to
_			•	field distribution system, 93, via cable channel
				modulator, 87. In its preprogrammed fashion,
				so determining causes computer, 73, to cause
				matrix switch, 75, to configure its switches so
_	_			as to transfer the programming transmission

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Reference	,	Page 328 lines 22-31.	Page 325 lines 6-9.	Page 339 lines 9-26.
Language		For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87,	When played on video recorder and players, 76 and 78, or other similar equipment well known in the art, such prerecorded programing can be transmitted to the field.	The facility could also process and transmit radio programing and other electronic data according to the methods described here by adding radio decoder paths and other signal decoder paths, as shown in FIGS 2B and 2C respectively, to signal processors, 71 and 96, and decoders, 77, 79, 80, 84, and 88.
Reference		Column 11 lines 50-54.	Column 10 lines 49-52.	Column 12 lines 58-64.
00		a plurality of signal sources; and		controlling said switch to communicate a signal of said signals to a selected one of

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	recorder/player means and decoder/detector means with control means and using the same processing and transmitting methods instruction signals embedded in the "Wall Street Week" programming transmission.	apparatus that outputs said transmissions over various channels to the cable system's field distribution system, 93, which apparatus includes cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system, 92.
	Page 21 lines 23-24.	Page 325 lines 1-4.
	instruction signals embedded in the "Wall Street Week" programing transmission.	and/or to equipment that outputs them over various channels to the cable system's field distribution system, 93, which equipment includes here cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system, 92.
•	Column 19 lines 43-44.	Column 10 lines 43-47.
•		a plurality of transmitters.

26. The method of	The method of Column 12 lines 45-47.	Beyond channel combining system and	Page 337 lines 1-8.	Fig. 6 shows particular signal
claim 21, further comprising one from the group consisting of:		multiplexer, 92, amplifier, 94, transmits programing to signal processor, 71, and signal processor, 96,		processor system monitoring apparatus associated with the intermediate station of Fig. 6. In field distribution system, 93, amplifier
transmitting to said at least one receiver				94, inputs programming transmissions to signal processor system, 71, (where said
station				transmissions are inputted to one alternate contact of the switch, 1, of the signal
				processor of said system, 71), and amplifier,
				signal processor. 96
data one of that	Column 3 lines 6-8.	Examples of signal words are a string of	Page 14 line 35 to page	Examples of signal words are a string of one
designate one of	•	one or more digital data bits encoded	15 line 2.	or more digital data bits encoded together on a
		together on a single line of video or		single line of video or sequentially in audio.
		sequentially in audio.		
a time and a channel of	Column 19 lines 20-23.	Analyzing these identifier signals in a	Page 267 lines 20-28	All eight of said messages are commands.
transmission of said		predetermined fashion, microcomputer,	from example #5.	The 1st- and 3rd-new-program-message (#5)
instruct signal and that		205, determines that "Wall Street Week" is		and the 1st-new-radio-program- message (#5)
		being televised on channel X.		signals are addressed to microcomputer, 205.
				Each informs said microcomputer of new
				programming transmissions to which said
				microcomputer can tune appropriate station
				receiver and display apparatus in fashions
				described below. (Hereinafter said commands
	•			are called "guide commands" because they
				can guide station control apparatus to desired
				programming.)

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Support to instant specification.	Language		In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200, of the station of Fig. 7 and 7C detects one instance of the Select-WSW-Program-Unit SPAM message of the station of Fig. 6 Receiving said Select-WSW-Program-Unit message causes the apparatus of said signal processor, 200, to input said message to the microcomputer, 205, of said station.	Receiving said Select-WSW-Program-Unit message causes decoder, 203, to input the information segment of said message to the information segment of said message to the information so inputted as a machine language job. The information so inputted is the aforementioned determine-whether-to-select instructions that contain said particular specific-WSW information and said particular specific-WSW information and said please-fully-enable-WSW-on-CC13-at-particular-8:30 information. Executing said determine-whether-to-select instructions causes microcomputer, 205, to Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance of spaid station to view (or record) said "Wall Street Week" program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said determines a match with said second instance. Determining a match causes microcomputer, 205, automatically to input
ı	Kelerence		Page 435 lines 16-25.	Page 437 line 3.
Towns I I I I I I I I I I I I I I I I I I I	Language			
parcint appin	Kelerence			
Claim Language				

pport to instant specification.	Language
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application filed November 3, 1981.	Language
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7	•				T					$\overline{}$
		-on-CC13-at-particular- 8:30 information to the controller, 20.	to receive the transmission of cable channel 13;		All eight of said messages are commands. The 1st- and 3rd-new-program-message (#5) and the 1st-new-radio-program- message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200, of the station of Fig. 7 and 7C detects one instance of the Select-WSW-Program-Unit SPAM message of the station of Fig. 6 Receiving said Select-WSW-Program-Unit message causes the apparatus of said signal processor, 200, to input said message to the microcomputer, 205, of said station.	Receiving said Select-WSW-Program-Unit message causes decoder, 203, to input the information segment of said message to	the CPU of microcomputer, 205, and to cause said CPU to execute the information so inputted as a machine language job. The information so inputted is the aforementioned	determine-whether-to-select instructions that	contain said particular specific-WSW information and said
			Page 439 lines 14-15.		Page 267 lines 20-28 from example #5.	Page 435 lines 16-25.	Page 436 line 9 to page 437 line 3.			
					Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.			·		
				Column 4 lines 5-13 Column 11 lines 50-57 Column 18 lines 53-56	Column 19 lines 20-23.					
					specify one of title of and subject matter contained in one of mass medium progranuming and data associated with said instruct signal; and					

SWIT 280, Appendix A, Page 168 of 183

ort to instant specification.	Language
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pplication filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anguage	Claim Language

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please-fully-enable-WSW-on-CC13-at-particu	Executing said determine-whether-to-select instructions causes microcomputer, 205, to Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said station to view (or record) said "Wall Street Week" program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and determines a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW on-CC13-at-particular- 8:30 information to the controller, 20.	to receive the transmission of cable channel 13,		Fig. 6 shows particular signal processor system monitoring apparatus associated with the intermediate station of Fig. 6. In field distribution system, 93, amplifier, 94, inputs programming transmissions to signal processor system, 71, (where said transmissions are inputted to one alternate contact of the switch, 1, of the signal processor of said system, 71), and amplifier, 95, inputs programming transmissions to
		Page 439 lines 14-15.		Page 337 lines 1-8.
				Beyond channel combining system and multiplexer, 92, amplifier, 94, transmits programing to signal processor, 71, and signal processor, 96,
			Column 18 line 66- Column 19 line 4 Column 19 lines 14-15 Column 19 lines 35-41 Column 19 lines 45-49 Column 19 line 67- Column 20 line 1	Column 12 lines 45-47.
				transmitting to said at least one receiver station

SWIT 280, Appendix A, Puge 169 of 183

upport to instant specification.	Language
Sup	Reference
Support to parent application filed November 3, 1981.	Reference
Claim I anglo	Ciaim Language

	_											_														_	_		_
Support to instant specification.	Language	sional processor 96	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200.	All eight of said messages are commands. The 1st and 3rd and are account (#5)	and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205.	Each informs said microcomputer of new programming transmissions to which said	microcomputer can tune appropriate station receiver and display apparatus in fashions	described below. (Hereinafter said commands are called "euide commands" because they	can guide station control apparatus to desired programming.)	Receiving said Select-WSW-Program- Unit	message causes decoder, 203, to input	the information segment of said message to	information to immediately 205, The	determine-whether- to-select instructions that	contain said particular specific-WSW	information and said enable-WSW-on- CC13	Said instructions contain one instance, and	program-unit-of-interest information that is	preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW	information, which second instance reflects	the wish of the subscriber of said station to	view (or record) said "Wall Street Week"	program when said program is transmitted.	Automatically, microcomputer, 203, compares	program-unit-of-interest information and	determines a match with said second	instance.	Determining a match causes	I HILLIDCOMPUTE, 2003, automatically to imput
Supl	Reference		Page 435 lines 16-18.	Page 267 lines 20-28 from example #5						Page 436 line 9 to	page 437 line 3.																		
Support to parent application filed November 3, 1981.	Language		processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all	signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a predetermined fashion microcommuter	205, determines that "Wall Street Week" is being televised on channel X.																								
Support to parent a	Reference		Column 19 lines 17-23.		,						•		•										,						
Claim Language	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		said at least one control signal to cause said at least one receiver	station																									

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pplication filed November 3, 1981.	Language
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said please-fully-enable-WSW -on-CC13-at-particular- 8:30 information to the controller, 20 to receive the transmission of cable channel 13:	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20. Receiving said please-fully-enable-WSW-on-CC13-at- particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;	The inputted information is the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design.	As the program proceeds, in the same fashion a further instruction signal is generated at said studio; transmitted; detected; inputted from decoder, 203, to microcomputer, 205; and executed as
Page 439 lines 14-15.	Page 437 lines 1-6.	Page 439 lines 9-15.	Page 295 lines 6-8.	Page 439 lines 9-15.	Page 29 lines 11-15.	Page 26 line 33 to page 27 line 9.
·	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X				As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design.	When the two studio generated graphics are no longer displayed, the studio stops sending the instruction signal, and the nicrocomputer, 205, ceases transmitting its own graphic to TV set, 202, and
	Column 19 lines 23-25.				Column 6 lines 26-30.	Column 20 lines 2-7.
	to tune to				one of a broadcast and cablecast transmission containing said instruct signal.	

SWIT 280, Appendix A, Page 171 of 183

Support to instant specification.	Language	"GRAPHICS OFF." Then said studio ceases transmitting the graphic image, and transmits another image such as the host's talking head. Simultaneously, the GRAPHICS OFF command causes microcomputer, 205, to cease overlaying the graphic information onto the received composite video and to command transmitting the received	composite video transmission unmodified. Thereafter the "Wall Street Week" program proceeds, and microcomputer, 205, continues to operate under control of received instructions.	Furthermore, it is undesirable to separate computer operations merely because they result in the generation of separate overlays because such separation may result in	example, the Fig. 1C display of user specific overall stock portfolio performance could be followed by second and third displays that analyze portions of the subscriber's	portfolioeg, the portion invested in New York Stock Exchange listed stocks in comparison to the so-called "NYSE" index and the portion invested in so-called	"over-the-counter" stocks in comparison to the so-called "NASDAQ" index. In order to calculate the value of the overall portfolio, it is necessary to calculate the value of these	portions. To require that the values of the portions be recalculated for subsequent overlays would be inefficient. In computer-based combined	information that a given system can convey is dependent on the efficiency of the employment of program instruction sets and combining synch commands.
iS	Reference			Page 451 line 22 to page 452 line 5.					
application filed November 3, 1981.	Language	prepares to send the next locally generated graphic overlay upon instruction from the originating studio.							
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Claim Language	299

Claim Language	Support to parent appl Reference	application filed November 3, 1981. Language	Supp Reference	Support to instant specification. Language	
claim 21, wherein said at least one control signal further comprise downloadable executable code	Column 8 lines 58-60.	Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.	Page 290 lines 26-31.	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	
			Page 291 lines 21-24.	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	
			Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	
·	Column 5 lines 16-20.	(The apparatus) has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.	Page 16 lines 6-10.	[The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.	
	For example Column 19 lines 46-53.	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, upon command.	For example Page 23 line 35 to page 24 line 16.	Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series. Microcomputer, 205, evaluates the initial signal word or words which instruct it to load at RAM (from the	
				input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions that follows said word or words just as the information of a file named FILE.EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the disk drive of said disk	
				Carrot to which the dish diffe of said dish	7

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pplication filed November 3, 1981.	Language
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inputs) and run were the command "FILE" entered from the console keyboard to the system level of the installed disk operating system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")	A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions. A command is always constituted of at least a	(Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining operation in synchronization is called a "combining synch command." Said initial signal word or words that preceded the above program instruction set provide another example of a combining synch command in that said word or words synchronized all subscriber station computers in commencing loading and running information for a particular combining.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch, 259	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) SWIT 280, Appendix A, Page 174 of 183
٠.	Page 44 lines 14-17.	Page 26 lines 20-28.	Page 59 lines 29-31.	For example, page 531 lines 17-22.	Page 290 lines 26-31.
			The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.		Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.
			Column 8 lines 62-65.		Column 8 lines 58-60.
			targeted to said processor of said at least one of said plurality of receiver		said downloadable executable code programming one of a way and

Claim I anguage	Support to parent ap	plication filed November 3, 1981.	Supp	ort to instant specification.
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	fashion, to decrypt and transfer the next X bits, to transfer the next L bits without				
	decryptor, 10, to transfer the first H bits	i			
	Said decrypt-a-00-header-message	line 27 to page 150 line			
	using it as its key for decryption.	Fee 500 140			
	Decryptor, 10, receives said key information and automatically commences				
	cause controller, 20, automatically to select and transfer said key information to decryptor,				
	Among said preprogrammed instructions is key information of J, and said instructions	For example, page 147 lines 23-28.			
	operation of all elements of the signal		when and how to change decryption patterns, fashions, and techniques.		
	Percent and manufactures.	Dec. 22 15.22 10.20	instructions.	Column 8 lines 30 40	
	and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating		programmable random access memory controller ("PRAM controller") that		
	apparatus at subscriber stations. [The apparatus] has a read only memory for recording permanent operating instructions	Page 16 lines 6-10.	[The apparatus] has a read only memory for recording permanent operating	Column 5 lines 16-20.	
	original transmission station that originates said message controls specific addressed				
	A CDAM means is the is the control of the control o	Dage 50 lines 20,31			
	signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message.				
	In the fashions described above, so transmitting said SPAM message causes	Page 291 lines 21-24.	1		
	and to input said selected to TV signal decoder, 30;				
_	from the multi-channel cable system transmission inputted to signal processor 200				
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Support to instant specification.	Language	decrypting or altering said bits, to decrypt and transfer the next MMS-L bits, and finally, to transfer any bits remaining after the last of said MMS-L bits without decrypting or altering said bits. In this fashion, the cadence information in said message, which is not encrypted, is transferred by decryptor, 10, to controller, 12, without alteration	Controller, 20, has capacity for controlling the operation of all elements of the signal processor and Then said instructions cause controller, 20, to transmit to controller, 12, a particular transfer-decrypted-message instruction and particular decryption mark information of key J that identifies J as the decryption key. Receiving said instruction and information causes controller, 12, to execute particular preprogrammed transfer- and-meter	Automatically, controller, 12, executes preprogrammed transfer-to-205-@12 instructions, activates the output port that outputs to SPAM- controller, 205C; then commences transferring information of said decrypted information of the second message under control of said transfer-and-meter instructions commencing with the first of said H bits and transferring information,	transferring information, under control of said transfer-and-meter instructions, to deactivate all output ports, and to commence executing the meter instructions of said transfer-and-meter instructions. Said meter instructions cause controller, 12, to transfer to buffer/comparator, 14, particular header identification information that identifies
Sup	Reference		Page 33 lines 18-20. Page 149 lines 8-15.	For example, page 150 lines 29-35.	For example, page 152 line 19 to page 153 line 1.
application filed November 3, 1981.	Language		[Controller, 20] can tell processor or monitor, 12, how to determine which signals to pass externally and when and where and how to determine which signals to pass to buffer/comparator, 14.		
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Support to parent application filed November 3, 1981.	Reference Language
Claim I anguada	Ciann Language

the information recorded at said SPAM-meter memory then the information recorded at said decryption-mark-@12 register memory, which information is the decryption mark of key J. (Hereinafter, said meter information generated by the second combining synch command in example #2 is called the "2nd meter information (#2).")	Signal processor, 26, has a controller device which includes programmable RAM controller, 20, ROM, 21, that may contain unique digital code information capable of identifying signal processor, 26, and the subscriber station of said processor, 26, uniquely; an automatic dialing device 24; and a telephone unit, 22 Controller, 20, has capacity for controlling the operation of all elements of the signal processor.	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
-	Page 33 lines 7-20.	Page 290 lines 26-31	Page 291 lines 21-24.	Page 59 lines 29-31.
	The signal processor apparatus also has a controller device which includes programable random access memory controller 20, read only memory 21 that may contain a unique digital code capable of identifying the signal processing apparatus uniquely, an automatic dialing device 24, and a telephone unit, 22. The controller, 20, governs the operation of all operating elements of the apparatus.	Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.		
	Column 8 lines 20-27.	Column 8 lines 58-60.		
·	in which said processor	responds to said instruct signal.		

	Signal processor, 200, is preprogrammed	with information that identifies each cable and	
	Page 248 line 17 to	page 249 line 5.	
	The controller, 20, is programed to	sequence the local oscillator, 6, to select	
	Column 9 lines 47-57.		
00	28. The method of	claim 21, wherein said	

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Vovember 3, 1981.	Language : Reference
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e =	,	
over-the-air (hereinafter, "wireless") transmission or frequency in the locality of the subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that apply on said transmissions and frequencies In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 13, wireless channel 13, then to repeat said pattern.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to decoder, 30 Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of channel 9 and input said decoder, 30
	Page 257 line 24 to page 258 line 19.	Page 257 line 24 to page 258 line 19.
each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.		The local oscillator, being thus sequenced, will allow each signal decoder, 30 and 40, to receive a particular frequency at a particular time interval.
at least one receiver station is one of adapted to detect said at least one control signal and		•

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Support to instant specification.	k of elapsed til edetermined fe letermined per input of wirele roller, 20, selection of the letermined tele	Said radio-detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 99.0 MHz. Automatically oscillator, 6, causes mixer, 2, to select said frequency and input it, at a fixed frequency, to decoder, 40 After determining, in a predetermined period of time has elapsed from the input of said 99.0 MHz frequency to decoder, 40, controller, 20, causes oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 100.0 MHz.	Example #5 begins with the embedding and transmitting, at the remote station that originates the "Wall Street Week" broadcast, of the first message of the "Wall Street Week" program which is the message of the first combining synch command.	Receiving said embedded information causes the binary SPAM information of said first command, with error correcting information, to be detected at detector, 34;	said information to radio decoder, 42, which decodes the the embedded signal information of said command and transmits said signal information to digital detector, 43, which detects the binary information with
Reference		Page 265 line 27 to Page 266 line 21.	Page 250 lines 13-17.	Page 251 lines 8-11.	Page 263 lines 19-24.
application filed November 3, 1981.			This will define the timing of the composite outputs of the digital detectors, 34, 37, and 38 in FIG. 2A, and 43 in FIG. 2B.		
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COLV. COL CL 1 1 COC CLIMA	-			
SPAM messages are composed of	Page 60 line 19 to page			-
complete instruction.				
separate locations, that receiver apparatus				
words, transmitted at separate times or in				
signals may convey information in discrete				
signals from the conventional programming and process them differently. In all cases.				
apparatus are preprogrammed to process that instruct receiver apparatus to separate the		Variations.		
include instructions that receiver station		preprogramed with the keys to such		
conventional print or data programming in the conventional transmission stream but will		may vary in fashions that can only be interpreted accurately by apparatus that are		
broadcast print and data communications transmissions, the signals may accompany		lengths of signal words in individual transmissions or groups of transmissions		
In television audio, [signals] are likely to lie between eight and fifteen kilohertz. In	Page 14 lines 13-25.	Both the arrangement of signal units in signal words and the locations, timings, and		
signals correctly.				
principle of the particular share obtain at any civen time will be oblated the particular the obtain at any civen time will be oblated to proceed the		will be able to process the signals correctly.		comprising the step of
embedded signals may vary in such fashions		apparatus that are preinformed regarding the natterns that obtain at any given time		transmission, said method further
the composition, timing, and location of		vary in such ways that only receiving	-	information
[The means and methods of this invention]	Page 13 lines 19-24.	In addition, the pattern of the composition,	Column 4 lines 36-46.	based on a signal
			Column 11 lines 50-57 Column 19 lines 14-15	
Succe week programming dansingsion.		Succi week programmig namsimosion.	Column 11 lines 41.44	
instruction signals embedded in the "Wall		instruction signals embedded in the "Wall		
respond in a predetermined fashion to		respond in a predetermined fashion to		to said instruct signal
Microcomputer, 205, is preprogrammed to	Page 21 lines 20-24.	Microcomputer, 205, is preprogramed to	Column 19 lines 42-44.	programmed to respond
relevant detector or detectors, 34, 37, 38, 43, and 46.				
in each decoder, the controller, 39, 44, or 47, receives detected digital information from the	rage 3/ iiies 20-26.			
	:			
command and transfers said binary and bit information to controller 44				

SWIT 280, Appendix A, Page 180 of 183

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elementsheaders, execution segments, meter-monitor segments, and information segmentswhose bit lengths vary. SPAM apparatus determine the bit length of said elements in different fashions, and the particular fashion that applies to any given element relates to the priority of said element for subscriber station speed of processing. First priority segment information has the highest priority for speedy processing and is of fixed binary bit length. A SPAM header is one example of a first priority segment. An execution segment is another example. Intermediate priority segment information has lower priority, varies in bit length, but contains internal length information. A Meter-monitor segment is one example of an intermediate priority segment. Lowest priority segment information has the lowest	internal information for determining segment length. Each information segment is an example of a lowest priority segment. All subscriber station apparatus are fully preprogrammed to perform automatically each step of each example. No manual step is required at any station. Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information, with source mark information, received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via each distribution amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor information of said message information with information of the programming schedule
61 line 1.	Page 91 lines 18-20. Page 327 line 35 to page 328 line 13.
	By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing.
	Column 11 lines 38-43.
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network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.	SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions	monitor information that identifies what programming is available,	Meter-monitor segments contain meter information and/or monitor information.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via marrix switch, 259	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted),
	Page 84 lines 26-28.	Page 28 lines 26-27.	Page 49 lines 26-27.	Page 59 lines 29-31.	For example, page 531 lines 17-22.	Page 290 lines 26-31.	Page 291 lines 21-24.
				The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.		Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.	
				Column 8 lines 62-65.		Column 8 lines 58-60.	
	······································	·		a portion of one of said at least one control signal and	·	said instruct signal to be transmitted	

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				, and a second s
				to detect the information of said message,
			Page 59 lines 29-31.	A SPAM message is the modality whereby the
				original transmission station that originates
				said message controls specific addressed
				apparatus at subscriber stations.
in said signal location. Column 12 lines 38-41.	Column 12 lines 38-41.	signal generators, 82, 86, and 90, also	Page 354 lines 21-24.	and signal generators, 82, 86, and 90, also
		well known in the art, that controller/		well known in the art, that computer, 73, can
		computer, 73, can instruct to add signals		cause to embed SPAM information as
		to programing as required.		required.